Required Report: Required - Public Distribution **Date:** April 29, 2024

Report Number: AS2024-0010

Report Name: Grain and Feed Annual

Country: Australia

Post: Canberra

Report Category: Grain and Feed

Prepared By: Zeljko Biki

Approved By: Gerald Smith

Report Highlights:

A tale of two is emerging for wheat and barley growers in Australia. Those in the eastern states have entered the MY 2024/25 planting season with good soil moisture and a particularly good fall break with widespread rains in the first week of April. Growers in Western Australia and South Australia have low soil moisture and are yet to receive any meaningful fall rains, with little expectation of rain in the coming weeks. FAS/Canberra forecasts a decline in wheat planted area and yield to dip below average with production at three percent below average. For barley, FAS/Canberra forecasts an increase in planted area but a fall in yield and a small decline in production from the prior year. Sorghum production is forecast to increase slightly in MY 2024/25, and exports are forecast to bounce back after the widespread rains at harvest adversely impacted the MY 2023/24 crop. MY 2024/25 is forecast for another strong year of rice production associated with an expectation of ample water availability.

EXECUTIVE SUMMARY

A tale of two is emerging for wheat and barley growers in Australia. Those in the eastern states have entered the planting season for marketing year (MY) 2024/25 with good root zone soil moisture and particularly good and widespread rains in the first week of April. Additionally, with the forecast of average rains in the coming months, growers are set for an above-average season. Growers in Western Australia and South Australia have low root zone soil moisture and are still waiting to receive any meaningful fall rains, with little expectation of rain in the coming weeks. There is still ample time to plant crops as late as early June. However, the closer towards the end of the planting period before meaningful rains arrive, the shorter the growing season will be, and the greater the impact will be on the balance of wheat and barley planted area and their yields.

FAS/Canberra forecasts a decline in wheat planted area and yields to dip below average, with production at 25.8 million metric tons (MMT), three percent below the previous 10-year average production. For barley, FAS/Canberra forecasts an increase in planted area but a fall in yield and production from the prior year. Exports of wheat and barley are expected to decline in the forecast year, mainly due to strong export programs for the MY 2023/24 estimate year, taking advantage of higher beginning stocks, which will not be available for the forecast year.

Sorghum production is forecast to increase slightly in MY 2024/25 and achieve the fourth successive above-average production year. Exports are forecast to bounce back in MY 2024/25 after the MY 2023/24 crop, now being harvested, was adversely impacted by the widespread rains in the first week of April. The same rains greatly benefited the wheat and barley growers in the eastern states. Substantial quantities of sorghum are reported to be feed sorghum quality and expected to be consumed by the domestic livestock industries, greatly reducing the volume of sorghum suitable for export in MY 2023/24.

MY 2024/25 is forecast for another strong year of rice production. With high levels of irrigation water currently in storage, rice producers anticipate having ample water available when planting the forecast crop (starting October 2024). With four successive years of strong rice production, imports and exports are forecast to ease slightly while consumption is set to increase. Domestic consumption is being boosted by strong population growth. MY 2023/24 production, now in the middle of harvest, is set to exceed earlier expectations. After a slow start to the production season for MY 2023/24, rice crops experienced favorable growing conditions, and crops harvested so far have achieved above-average yields.

WHEAT

Production

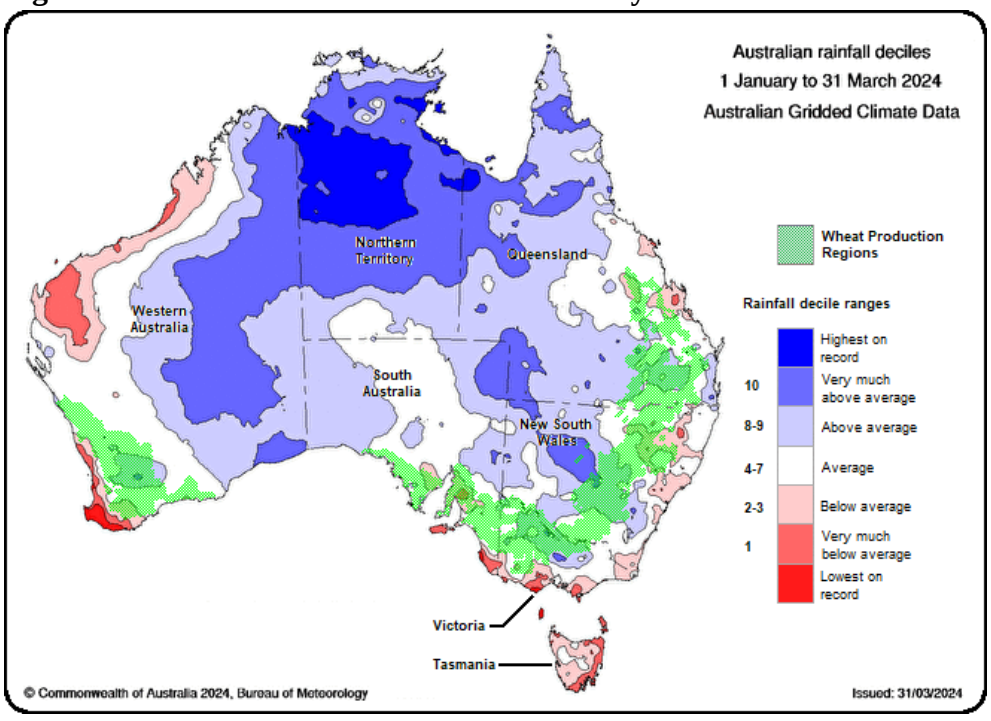
FAS/Canberra forecasts wheat production to remain relatively flat at 25.8 MMT in MY 2024/25, three percent below the previous 10-year average of 26.6 MMT. FAS/Canberra forecasts a 400,000-hectare

decline in wheat planted area for MY 2024/25 and yield to be three percent below the 10-year average. This is due to vastly different conditions at the start of the planting period between Australia's eastern and western production regions.

The eastern states of New South Wales, Victoria, and Queensland have generally received average to above-average rainfalls from the start of 2024, which has led to very good root zone soil moisture at the start of planting. Additionally, they received exceptionally good rains early in the planting period. Western Australia and South Australia have entered the start of the planting period with below-average root zone soil moisture and have yet to receive fall rains to get the winter planting going in earnest. This will influence decision-making regrading increased fallow area and changing the balance of the winter cropping program. The extent of the change will depend upon how much and when fall rains arrive. Wheat in Australia is typically planted from April to June and harvested from October to December. The more northern production areas generally have earlier planting and harvest compared to the more temperate climate in the southern areas. For Western Australia and South Australia, being further north of the most southern producing areas, most of the planting is usually completed by the end of May.

The first three months of 2024 saw around average rainfall across the wheat-producing areas, with some areas receiving above-average and some below-average (see Figure 1). There was little difference in the position between the eastern (New South Wales, Victoria, and Queensland) and western (Western Australia and South Australia) producing areas.

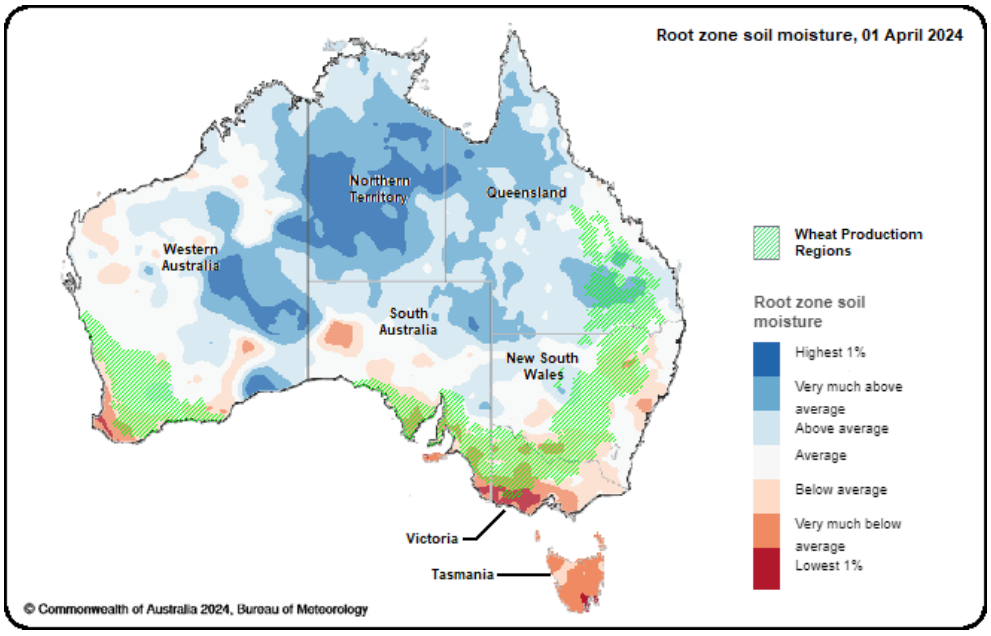
Figure 1 – Australia Rainfall Deciles – January to March 2024



Source: Australian Bureau of Meteorology / FAS/Canberra

At the start of April 2024, the early part of the typical planting period for most regions, the root zone soil moisture levels across wheat-producing areas varied substantially. The northern areas generally had above-average soil moisture, while the southern producing areas had below-average soil moisture (see Figure 2). Planting typically begins earlier in the more northern areas and later the further south. So, for wheat producers in Queensland and New South Wales (the second largest wheat-producing state), the position was promising. However, some fall rains were needed to link the root zone soil moisture with surface soil moisture and give growers the confidence to progress with a full planting program. At the start of April 2024, growers in the more southern areas of Victoria, and those in Western Australia, and South Australia were in a more precarious position with below-average soil moisture, and yet to receive any significant fall rains.

Figure 2 – Australia Soil Moisture Map – April 06, 2024

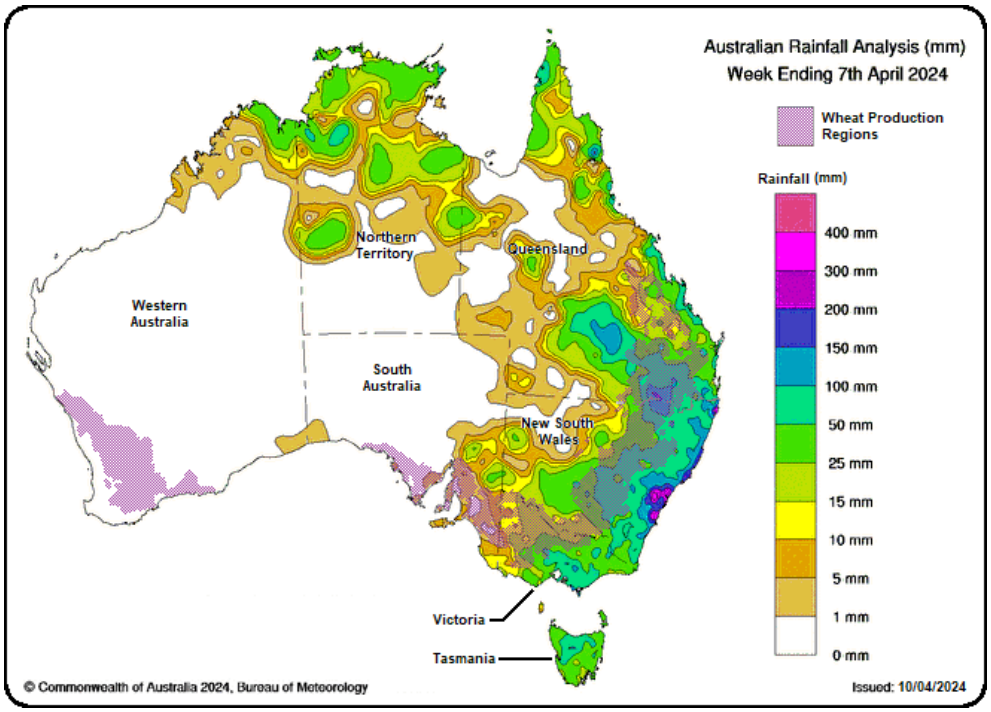


Source: Australian Bureau of Meteorology / FAS/Canberra

The first week of April 2024 brought very good widespread rainfall across the eastern states (see Figure 3). This rain has been timely, and the planting season across Queensland, New South Wales, and Victoria (which lacked root zone soil moisture) is reportedly pushing forward with a strong winter crop planting program.

Growers in Western Australia and the western parts of South Australia did not receive rain in the first week of April. Additionally, as of mid-April 2024, no significant rains are forecast for these areas for the remainder of April and into early May. As the planting season progresses toward the end of the planting period, in conjunction with how much or how little rainfall occurs, growers will continue reassessing their planting program.

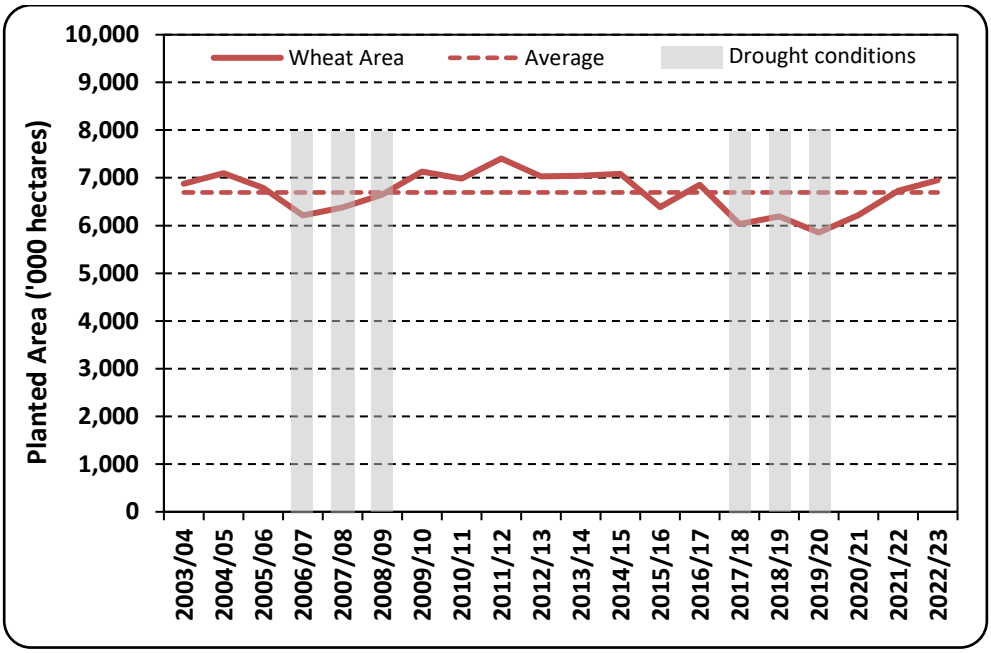
Figure 3 – Australia Rainfall – April 1-7, 2024



Source: Australian Bureau of Meteorology / FAS/Canberra

Over the last two decades, there have been two significant drought-influenced periods in Western Australia and South Australia. In each of those periods, the area of wheat planted has declined (see Figure 4). In the most recent period, the decline from the average was 840,000 hectares (12.5 percent) and 1,096,000 hectares (18.7 percent) from the peak. At this point, there is still ample time for fall rains to arrive and support a good, planted area of wheat in Western Australia and South Australia. For the eastern states, with the good soil moisture and very good fall rains in early April, it is anticipated that there will be an increase in the planted area of wheat. On balance, FAS/Canberra forecasts a 400,000-hectare (3.2 percent) decline in wheat planted area for MY 2024/25.

Figure 4 – Wheat Area Trends – Western Australia and South Australia



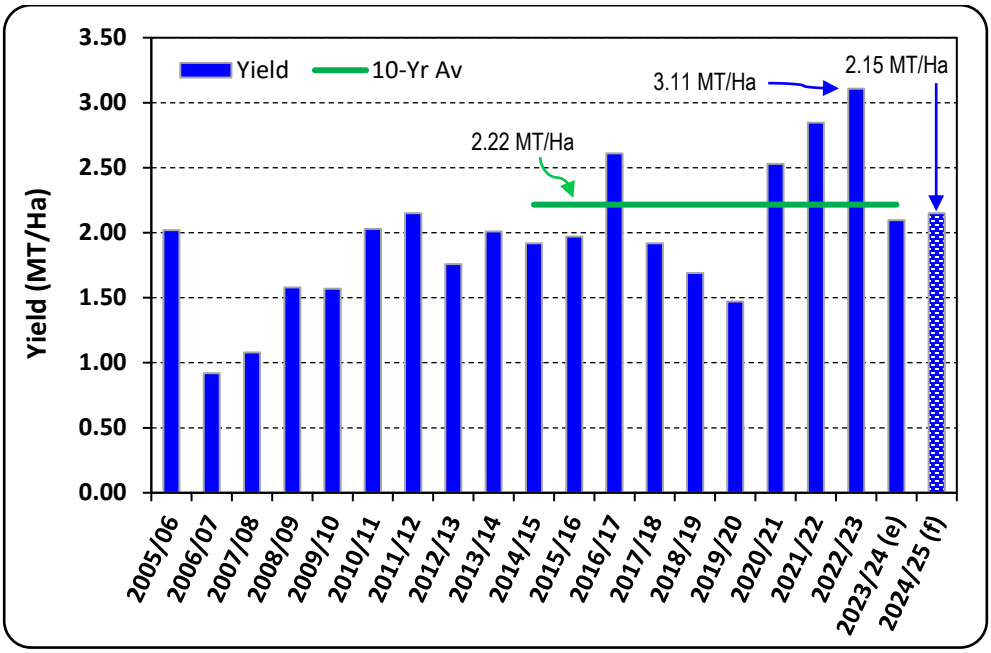
Source: *PSD Online / Australian Bureau of Meteorology*

Wheat yields are forecast to be 2.15 metric tons (MT) per hectare (Ha), three percent below the previous 10-year average of 2.22 MT/Ha (see Figure 5). This forecast is well below recent past yield results, which peaked at 3.11 MT/Ha but is marginally above the MY 2023/24 estimate.

For MY 2023/24, after a broadly good planting period supported by very good root zone soil moisture, rainfall was well below average across all wheat-producing regions from March to October during the main growing period. Despite these challenging conditions, the estimated national average yield was just five percent below the previous 10-year average. In comparison, for the start of MY 2024/25, conditions in the eastern states are as good or a little better than the previous year, but for Western Australia and South Australia, conditions are very dry so far. The two affected states over the last 10-year period, Western Australia and South Australia, have produced a little over half (53 percent) of the national wheat crop. So, the rainfall outcomes during the remainder of the planting period and beyond will substantially influence on the national average wheat yield for MY 2024/25.

An important positive for MY 2024/25 is that the rainfall forecast for the coming months from May to July 2024 broadly shows an average chance of exceeding median rainfall. Meanwhile, parts of South Australia and some of Western Australia have a lower chance of rainfall (see Figure 6). If this forecast is realized, the situation augurs well for growers in the eastern states who would expect to far exceed average yields. This would support those areas to the west that have had a more challenging start to their production season, which may lead to below-average yields for them.

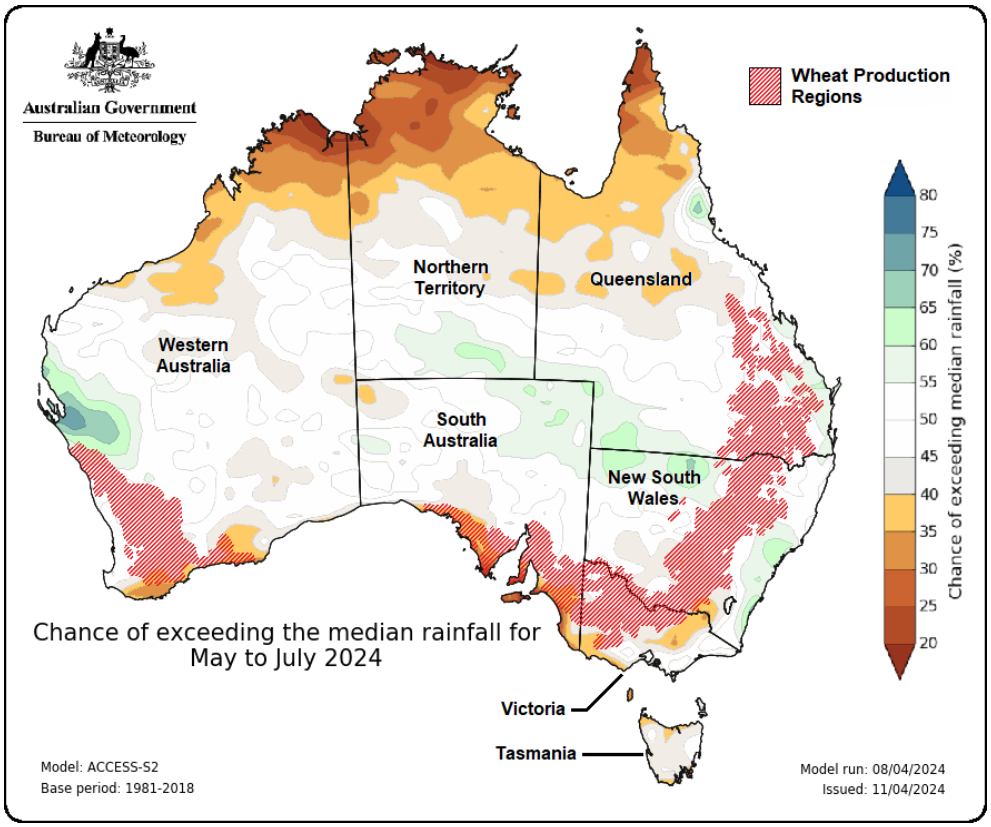
Figure 5 – Australian Wheat Yield History



Source: *PSD Online / FAS/Canberra*

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

Figure 6 – Australia Rainfall Forecast Map – May to July 2024



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

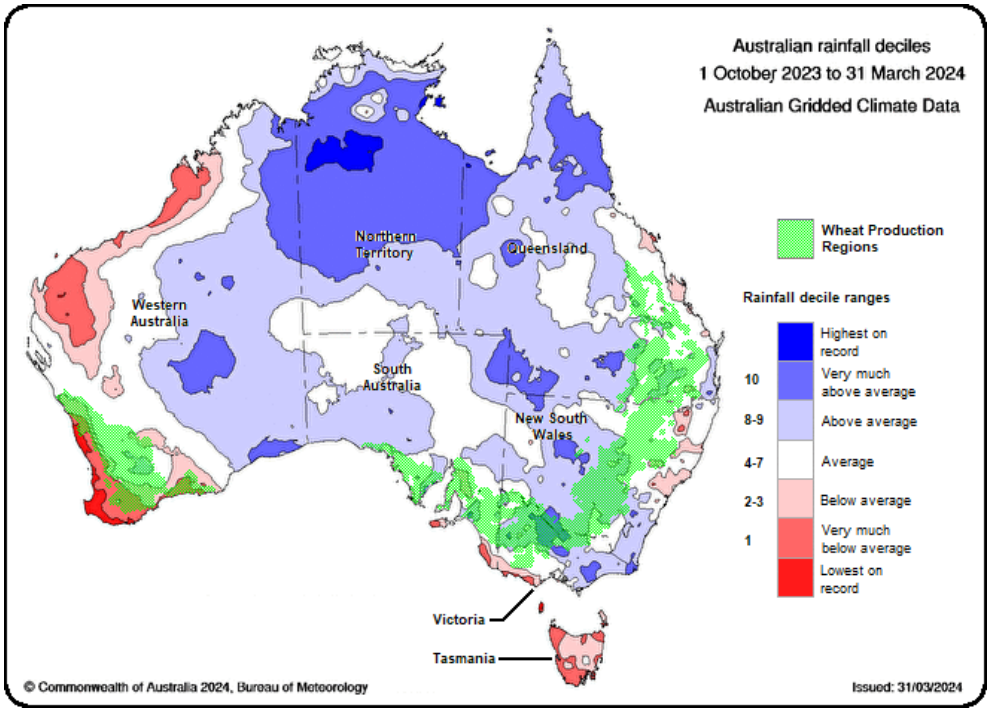
The Australian Bureau of Meteorology (BOM), on April 16, 2024, declared an end to El Niño (dryer than usual conditions) that it first announced on September 19, 2023. Conditions have returned to neutral, and BOM reports that some climate models indicate a chance of a shift to La Niña (wetter than usual conditions) around July 2024.

During the declared El Niño period the majority of the country (including most of the wheat-producing areas) has had average to above-average rainfall, far from typical El Niño outcomes (see Figure 7).

Some meteorologists indicate that the BOM reference period for one of the measures for determining El Niño / Neutral / La Niña (wetter-than-usual conditions) is outdated due to overall temperatures increasing over recent decades and is now skewed towards El Niño. Using a more up-to-date reference period, some non-government meteorologists suggest Australia is already close to La Niña conditions. Nevertheless, between this position and the official BOM forecast, it appears unlikely that growers will receive below-average rainfall in the coming months.

Based on current differing circumstances between the eastern and western Australian wheat producing areas and the official BOM forecast for the coming months, the situation currently supports a yield expectation of near average. However, there is an opportunity for upside, particularly if Western Australia and South Australia receive good rains in the coming weeks during their planting period.

Figure 7 – Australia Rainfall Deciles – October 2023 to March 2024



Source: Australian Bureau of Meteorology / FAS/Canberra

Wheat production for MY 2023/24 is estimated at 26.0 MMT, less than two percent below the previous 10-year average, and after record production of 40.5 MMT in MY 2022/23. The MY 2023/24 estimate is in line with the Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) estimate, now around three months after the completion of harvest.

Consumption

The FAS/Canberra forecast for Australian wheat consumption in MY 2023/24 is 8.0 MMT, marginally above the MY 2023/24 estimate of 7.75 MMT, but in line with MY 2022/23. The forecast 250,000 MT increase in livestock feed consumption is due to an estimated reduction in sorghum consumption for livestock in the forecast year. Wheat utilized for milling is relatively stable from year to year.

The majority of the wheat demand by the livestock industry is for beef cattle feedlots and, to a lesser degree the dairy industry, as well as the swine and poultry industries. Weather conditions for pasture production, in areas where most of the livestock industries are located, have generally been very favorable over recent years which has continued into the current autumn period. With good conditions over recent years, pasture production and fodder reserves are good, which will carry well into the forecast year.

It's important to note that significant changes in livestock feed demand occur during drought conditions. However, with the BOM rainfall forecast for the coming months being around average, at this point, there is no trigger for any change in feed demand. Despite expanding feedlot capacity in Australia, the number of cattle on feed has been relatively stable, and the feedlot numbers are not expected to change significantly in the forecast year. With this, the overall feed demand for livestock is forecast to remain stable for MY 2024/25.

Domestic consumption of wheat for milling is expected to remain unchanged from recent years. However, Australia's current rapid population growth may impact milled flour demand and drive investment in milling capacity for future growth.

FAS/Canberra's wheat consumption estimate for MY 2023/24 of 7.75 MMT is a downward revision of 250,000 MT from the previous estimate. This relates directly to the current sorghum harvest in southern Queensland and Northern New South Wales, which was affected by heavy rainfall in the first week of April 2024. The industry reports that due to this event, a large volume of sorghum grain will be downgraded due to sprouting. Much of this downgraded sorghum will enter the livestock feed market, displacing wheat, and barley. Reports show traders need help finding export markets for the feed-grade sorghum.

Exports

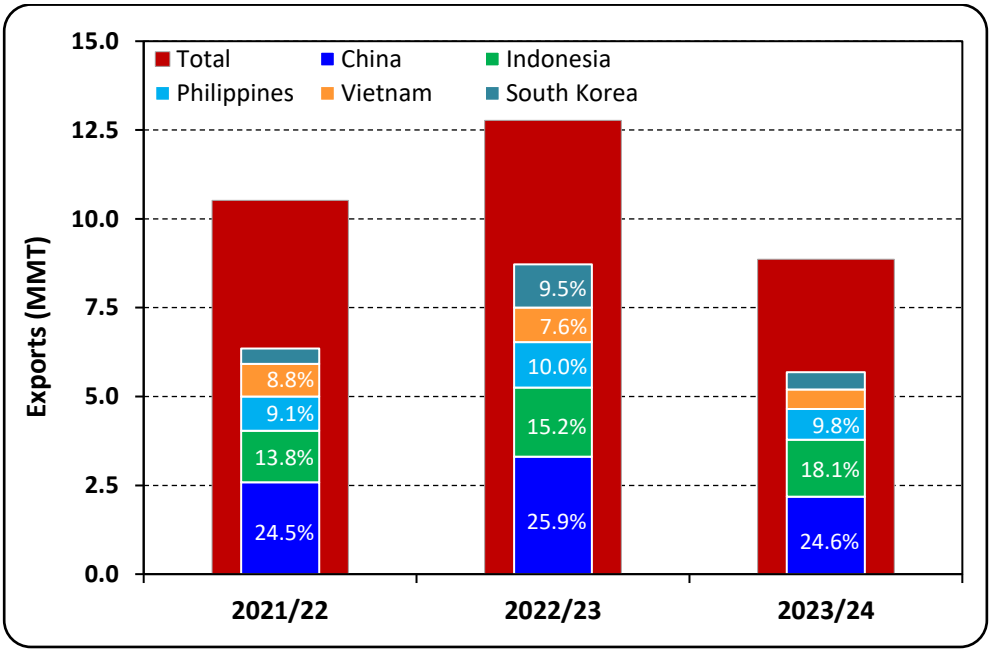
FAS/Canberra's forecast for wheat exports for MY 2024/25 is 17.5 MMT, a 2.5-MMT decline from the MY 2023/24 estimate of 20 MMT. Both production and consumption are similar for the forecast and

estimate years. The 12.5 percent fall in forecast exports is mainly due to higher exports for MY 2023/24 enabled via a drawdown of stocks, and further depletion of stocks is unlikely to occur for MY 2024/25.

Australia has for many years had over 50 wheat export destinations, and of these, five consistently big customers have accounted for 55 to 70 percent of all exports over the last three years. The volume of wheat exports to these nations has risen and fallen with the volume available for exports, including MY 2022/23, a record export year.

China is by far the largest export destination by volume and in recent years has consistently accounted for one-quarter of Australia's wheat exports (see Figure 8). Following China, Indonesia is the second most important wheat export destination for Australia at around 15 percent of overall exports. The Philippines, Vietnam, and South Korea have each accounted for five to ten percent of Australia's wheat exports over recent years.

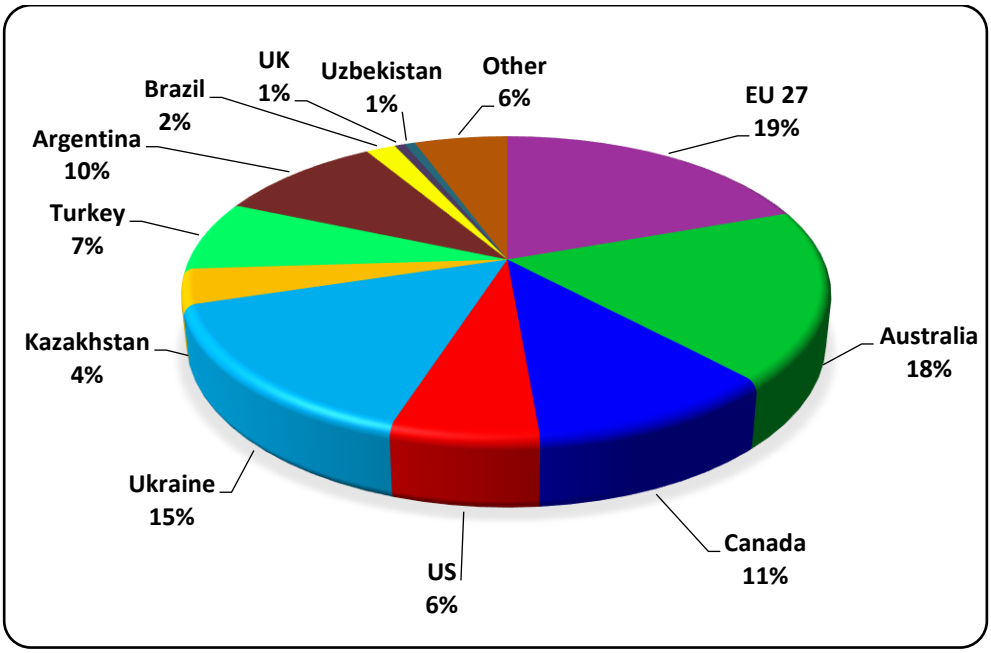
Figure 8 – Wheat Export Destinations – October to February 2021/22 to 2023/24



Source: Australian Bureau of Statistics

In the most recent full marketing year, Australia was the second largest exporter of wheat at 18 percent of world trade, slightly behind the EU (see Figure 9). However, it must be recognized that there is no accurate wheat export data from Russia that year. In past years, Russia has typically been the first or second largest exporter of wheat. There is generally a large variance in Australian wheat production from year to year due to climate variability, which impacts volumes available for exports. Inclusive of trade from Russia, Australia, in the past has typically been a top five world wheat exporter.

Figure 9 – World Wheat Exports – MY 2022/23



Source: *Australian Bureau of Statistics*

UK-AU FTA

The United Kingdom (UK) and Australia commenced a Free Trade Agreement in mid-2023.

Under the FTA the Australian grain industries received an immediate tariff-free quota for 80,000 MT of wheat and 7,000 MT of barley to the UK, and after four years tariffs will be eliminated. Although this was welcomed by the Australian grain industries and provided a further significant market access option, it was anticipated that Australia would continue to focus its trade mainly on its nearby Asian markets.

For the first five months of MY 2023/24, wheat exports to the UK have been a little over 4,000 MT, marginally higher than for the same period in the previous year before the FTA was established - a very minimal amount, with little impact on Australian wheat producers.

FAS/Canberra's wheat export estimate for MY 2023/24 is 20.0 MMT. This is a significant drop from the prior year's record exports of 31.8 MMT but still above the previous 10-year average of 18.9 MMT. For the five months from October 2023 to February 2024, Australia has exported 8.9 MMT. The first five months of trade, on average, account for 39 percent of the marketing year exports, and at this rate, exports are on track to reach 23.0 MMT. At that rate, Australia would almost extinguish its wheat stocks, so the pace of exports is anticipated to slow for the remainder of the marketing year.

Imports

FAS/Canberra's wheat import forecast for MY 2024/25 remains low at 200,000 MT and aligned with prior year results. 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 2024/25 are anticipated to recover slightly after being depleted more than usual in MY 2023/24 due to strong world export demand. FAS/Canberra forecasts MY 2024/25 ending stocks to increase from 2.7 MMT to 3.2 MMT which is below past typical levels.

Table 1 - Production, Supply, and Distribution of Wheat

Wheat	2022/2023		2023/2024		2024/2025	
Market Year Begins	Oct 2022		Oct 2023		Oct 2024	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	13045	13045	12500	12400	0	12000
Beginning Stocks (1000 MT)	3454	3454	4373	4371	0	2821
Production (1000 MT)	40545	40545	26000	26000	0	25800
MY Imports (1000 MT)	197	197	200	200	0	200
TY Imports (1000 MT)	205	205	200	200	0	200
Total Supply (1000 MT)	44196	44196	30573	30571	0	28821
MY Exports (1000 MT)	31823	31825	20500	20000	0	17500
TY Exports (1000 MT)	32329	32329	24000	22500	0	17500
Feed and Residual (1000 MT)	4500	4500	3500	4250	0	4500
FSI Consumption (1000 MT)	3500	3500	3500	3500	0	3500
Total Consumption (1000 MT)	8000	8000	7000	7750	0	8000
Ending Stocks (1000 MT)	4373	4371	3073	2821	0	3321
Total Distribution (1000 MT)	44196	44196	30573	30571	0	28821
Yield (MT/HA)	3.1081	3.1081	2.08	2.0968	0	2.15

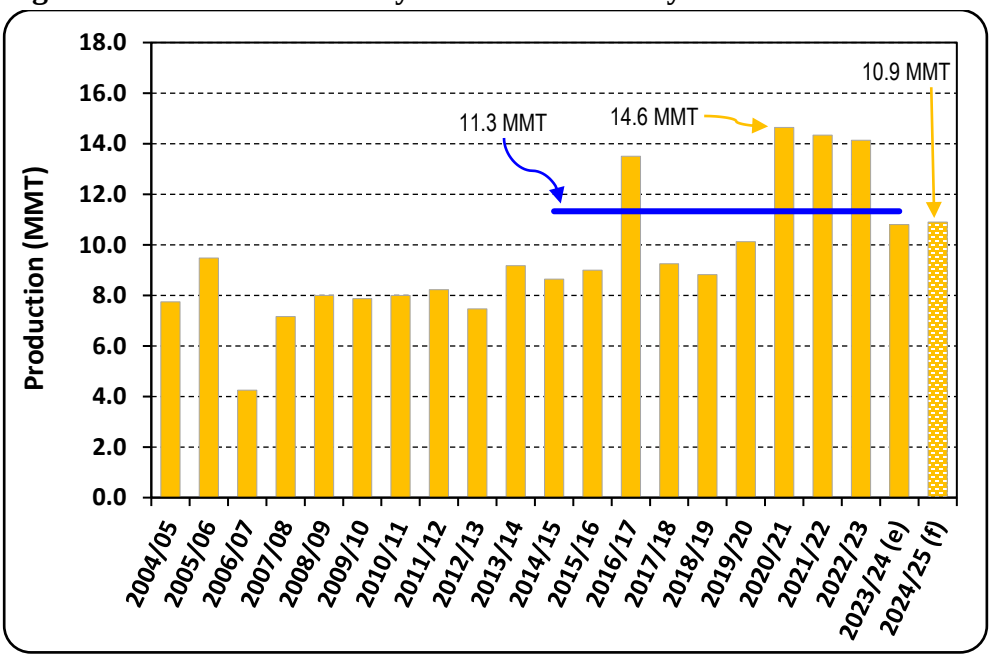
(1000 HA) ,(1000 MT) ,(MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Wheat begins in July for all countries. TY 2024/2025 = July 2024 - June 2025

BARLEY

Production

FAS/Canberra forecasts Australia's MY 2024/25 barley production at 10.9 MMT, similar to the prior year estimate of 10.8 MMT. The forecast production would remain a relatively large crop but remain almost four percent below the previous 10-year average. However, the average is strongly influenced by three recent seasons that produced the three biggest crops on record (see Figure 10). Although the forecast is for similar overall production compared to the MY 2023/24 estimate, it is based on an increase in planted area and a lower average yield.

Figure 10 – Australian Barley Production History



Source: *PSD Online / FAS/Canberra*

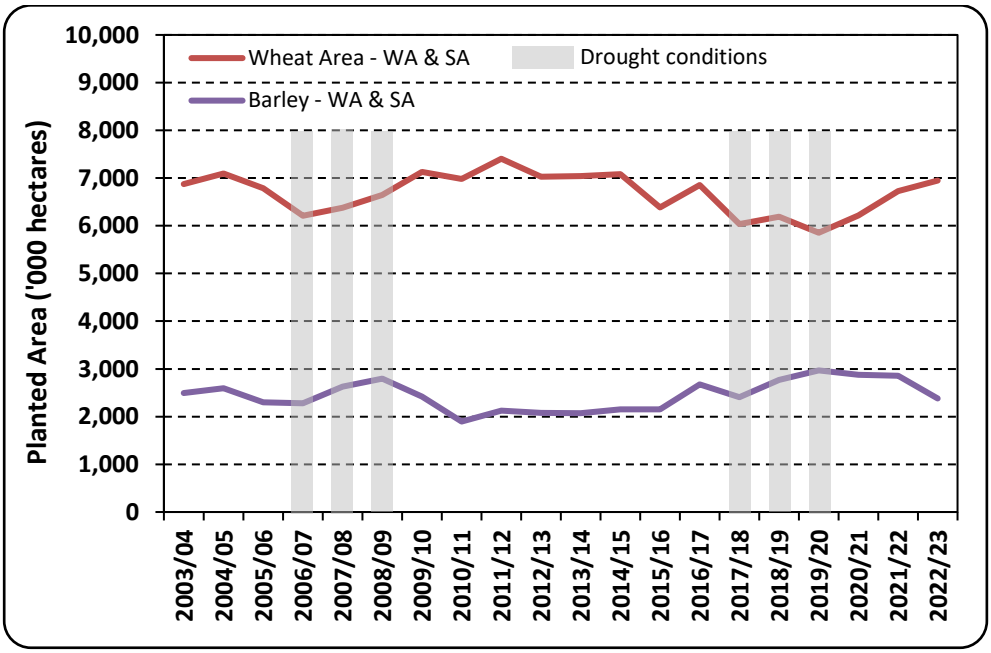
Notes: *(e) = estimate, (f) = forecast*

Barley is grown in the same areas as wheat in Australia, and as previously mentioned, for wheat, the planting period so far for growers in Western Australia and South Australia has had very little rain. There is also very little rain forecast through to early May, but planting can typically occur through to the end of May and creep into June in the more southern parts of these states. Across most of South Australia and parts of Western Australia, there is some root zone sub-surface moisture, so many growers will sow their winter crops 'dry' (with little surface moisture), particularly if they perceive the prospect of rains in the coming weeks.

The closer towards the end of the planting period, the greater the risk of low yield and failed crop outcomes. With this, the higher input cost of canola will make way for wheat or barley. As time progresses into the planting window, some wheat will be substituted for barley. For Western Australia and South Australia, past drought-influenced seasons indicate the scope of substituting wheat planted

area for barley (see Figure 11). In the most recent drought period for Western Australia and South Australia, the wheat planted area declined by around 750,000 hectares, whereas the barley area increased by around 400,000 hectares. With some areas of Western Australia and South Australia having near average root zone soil moisture in mid-April 2024 (see Figure 2), the current situation is not as severe as the recent past drought period, so the extent of the change in barley planted area is expected to be less extreme.

Figure 11 – Wheat and Barley Area Trends – Western Australia and South Australia



Source: *Australian Bureau of Agricultural and Resource Economics and Sciences*
Note: *WA = Western Australia, SA = South Australia*

As discussed for wheat, the root zone soil moisture levels and the substantial and widespread rains in the first week of April 2024 have set up winter crop producers in the eastern states with a great start to the MY 2024/25 season. The BOM also forecasts around average rainfalls over the coming months for winter crop producers in the eastern states. In this situation, growers in the eastern states are anticipated to establish a full winter crop planting program. Small changes to the planted areas of wheat, barley, and canola are anticipated, compared to the prior year, with growers accounting for the general expectation of flat prices for wheat and barley and potentially firming prices for canola for MY 2024/25.

The primary influence on the barley planted area is the current and pending circumstance for the remainder of the planting period in Western Australia and South Australia. On balance FAS/Canberra forecasts a 200,000-hectare (4.8 percent) increase in the planted area of barley for MY 2024/25 compared to the estimate for the prior year.

Concerning yield expectations for the forecast year, the same circumstances apply to barley as for wheat which was outlined earlier. Based on the very positive start to the season for the barley growers in the eastern states, and the forecast of around average rainfalls in the coming months, yields are likely to be above average. At the same time, the lack of fall rains in Western Australia and South Australia is driving a below-average yield expectation in these states. Over the last 10 years, on average, Western Australia and South Australia have produced 57 percent of the national crop. On balance, FAS/Canberra currently forecasts barley yields to be almost four percent below the estimate for MY 2023/24 and around the previous 10-year average.

Barley production for MY 2023/24 is estimated to have reached 10.8 MMT, which is in line with the ABARES estimate. This is a strong outcome at slightly below the previous 10-year average, considering rainfall was well below average for most barley-producing areas over the growing season from March to October 2023.

Consumption

FAS/Canberra's barley consumption forecast for MY 2024/25 is 6.0 MMT, 250,000 MT above the estimate for MY 2023/24, but in line with MY 2022/23. As is the case for wheat consumption, the forecast 250,000 MT increase in livestock feed consumption is due to an estimated decrease in sorghum consumption in the forecast year. Domestic consumption for malting purposes, which includes malt for export, is relatively stable, with livestock feed consumption being the primary variant from year to year. Malt exports have steadily risen over the last decade from around 500,000 MT a year and bounced from 630,000 MT to 950,000 MT over the last five years. However, malt production in Australia is likely to be a little more stable from year to year, and these variances are relatively small compared to the overall annual consumption of barley.

As mentioned for feed wheat consumption, the majority of the barley demand by the livestock industry is for beef cattle feedlots and, to a lesser degree the dairy industry, along with swine and poultry industries. The livestock industries have generally had very good rains from 2020 to 2022. Despite that, there was a dry period in the middle of 2023 before above-average rains began towards the end of 2023, which continued in early 2024. This has kept on-farm supplementary feeding to a minimum, other than for a short period in mid-2023 in southern Queensland and northern New South Wales. With good pasture production conditions from the tropical wet season that has just ended and recent autumn rains in the sub-tropical and temperate areas further south, there is no foreseeable shortage of feed for pasture-based livestock production in the coming months.

Beef feedlot capacity is expanding in Australia, but the number of cattle on feed has been relatively stable, and the feedlot numbers are not expected to change significantly in the forecast year. The number of cattle on feed and the associated volume of feed demand is typically driven by drought conditions in the pastoral areas. With good conditions in recent months, and the forecast of average rains in the

coming months, there is little reason for any significant change in livestock feed demand for MY 2024/25.

FAS/Canberra's barley consumption estimate for MY 2023/24 of 5.75 MMT is a downward revision of 250,000 MT from the earlier report estimate. As is the case for wheat, this relates directly to the current sorghum harvest in southern Queensland and northern New South Wales, which was affected by heavy rainfall during the harvest. Heavy rainfall is expected to result in a large volume of downgraded sorghum grain, due to sprouting. Much of this downgraded sorghum will enter the livestock feed market, displacing wheat and barley, as previously mentioned.

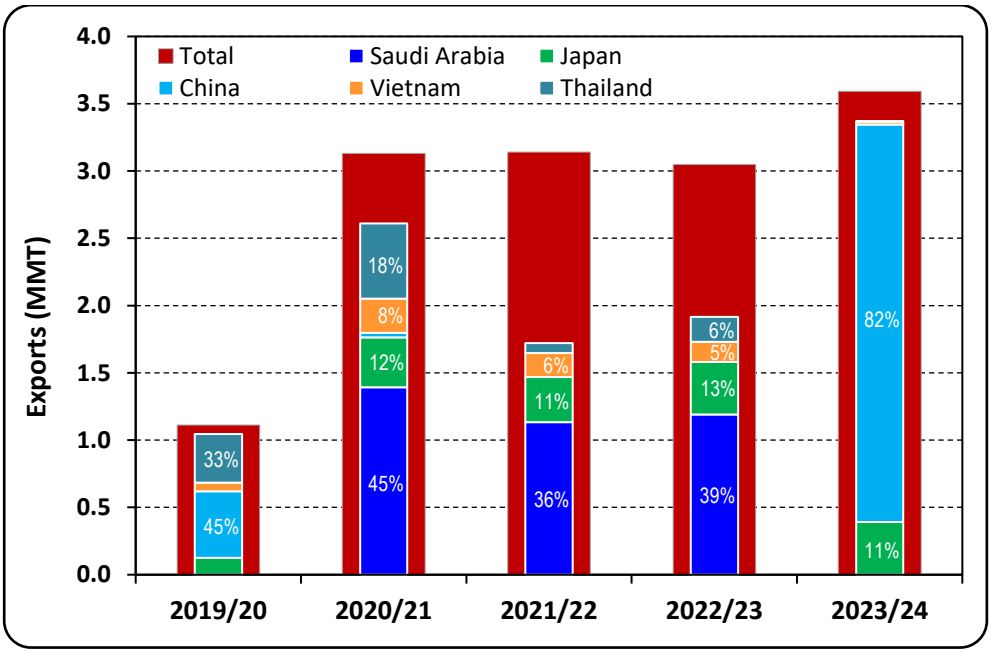
Exports

Australia's barley exports for MY 2024/25 are estimated at 5.0 MMT, 2.0 MMT below the estimate for MY 2023/24 of 7.0 MMT. This is a large fall, not driven by any change in production or domestic consumption in the forecast year. Instead, it is due to three proceeding years (MY 2020/21 to MY 2022/23) of high barley production, which resulted in some stock build-up, and those stocks are anticipated to be drawn down in MY 2023/24 due to strong export demand.

While the overall exports are forecast down, the recent shift in export market dynamics for Australian barley is expected to continue from MY 2023/24. Over the last five years, there has been an enormous shift in export destinations for Australian barley. Prior to MY 2020/21, China was a dominant export destination. However, in May 2020, China imposed a duty on Australian barley imports. Australia then successfully diversified its barley export destinations when production and volumes available for export were very high. In August 2023, the Chinese Ministry of Commerce reviewed its anti-dumping and anti-subsidy claims against imported Australian barley and removed the tariff. Since then, barley exports to China have rapidly ramped up. China has outcompeted all other nations, besides Japan for the supply of Australian barley. For the first four months of trade in MY 2023/24, barley exports to China have been 82 percent of overall exports, and Japan has maintained its share of around 11 percent in recent past years (see Figure 12).

With China's insatiable demand and the diverse customer base established over recent years, Australia will have no difficulty in shipping the reduced barley export forecast volume of 5.0 MMT in MY 2024/25.

Figure 12 – Major Barley Export Destinations – Nov to Feb MY 2019/20 to 2023/24



Source: *Australia Bureau of Statistics*

FAS/Canberra's barley export estimate for MY 2023/24 is 7.0 MMT. This is an upward revision of 1.0 MMT from FAS/Canberra's previous estimate. This is partly due to an upward revised production estimate of 0.5 MMT and insatiable export demand from China so far in this marketing year, which has generated a stronger-than-anticipated export pace. For the four months from November 2023 to February 2024, barley exports for MY 2023/24 are at 3.6 MMT. Considering this early strong pace of exports and typical export seasonality, this rate of exports would achieve around 8.9 MMT for the full marketing year. However, there is inadequate barley stock for exports to reach this level, and it is anticipated that the pace of exports will slow for the remainder of the marketing year.

Stocks

Australia's ending stocks of barley in MY 2024/25 are expected to remain stable at a very low level of 1.0 MMT. For MY 2023/24, barley stocks are estimated to decline from 3.2 MMT to 1.1 MMT, mainly driven by the strong demand for Australian barley from China.

Table 2 - Production, Supply, and Distribution of Barley

Barley	2022/2023		2023/2024		2024/2025	
Market Year Begins	Nov 2022		Nov 2023		Nov 2024	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	4127	4127	4200	4200	0	4400
Beginning Stocks (1000 MT)	2848	2848	3220	3220	0	1270
Production (1000 MT)	14137	14137	10800	10800	0	10900
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	16985	16985	14020	14020	0	12170
MY Exports (1000 MT)	7765	7765	6200	7000	0	5000
TY Exports (1000 MT)	7084	7084	6500	7500	0	5000
Feed and Residual (1000 MT)	4500	4500	4500	4250	0	4500
FSI Consumption (1000 MT)	1500	1500	1500	1500	0	1500
Total Consumption (1000 MT)	6000	6000	6000	5750	0	6000
Ending Stocks (1000 MT)	3220	3220	1820	1270	0	1170
Total Distribution (1000 MT)	16985	16985	14020	14020	0	12170
Yield (MT/HA)	3.4255	3.4255	2.5714	2.5714	0	2.4773

(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 2024/2025 = October 2024 - September 2025

SORGHUM

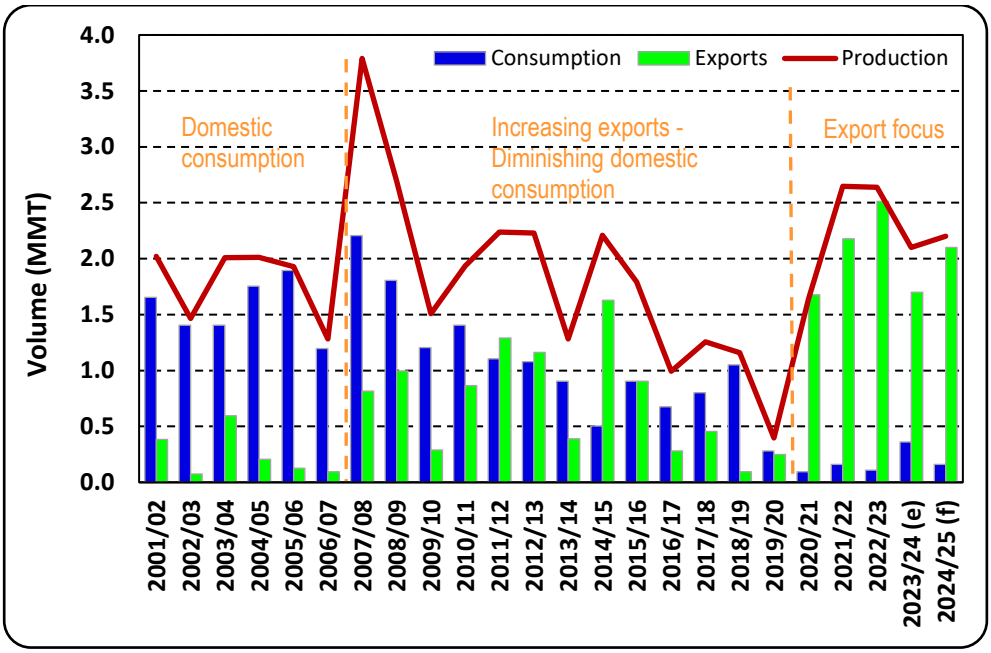
Production

The FAS/Canberra's sorghum production forecast for MY 2024/25 is 2.2 MMT, slightly higher than the upward revised 2.1 MMT estimate for MY 2023/24.

Harvested area is forecast to remain stable at 600,000 hectares for MY 2024/25. However, yield is expected to increase slightly from the upward revised MY 2023/24 estimate to around 20 percent above the previous 10-year average. The 10-year average of 3.04 MT/Ha is strongly influenced by three drought years, so the forecast yield is achievable in normal seasonal conditions.

Sorghum production in Australia varies greatly from year to year, mainly based on weather conditions leading up to planting and during crop growth, given that it is a dryland summer crop. Irrigated summer cropping areas in the regions suited to sorghum production are utilized for higher economic value cotton crops. The appetite for sorghum production in Australia has remained strong over the last two decades. However, the end use of sorghum driving production shifted dramatically over that period. Until the mid-2000's, most sorghum produced in Australia was used domestically for livestock feed purposes (see Figure 13). Over the following 15 years to 2020, there was a major transition from domestic livestock feed use towards exports. This was due to beef feedlots transitioning towards a preference for wheat and barley in their feed rations. In recent years most of the sorghum produced has been exported, its strong demand continues to drive production in Australia.

Figure 13 – Change in Australian Sorghum Use



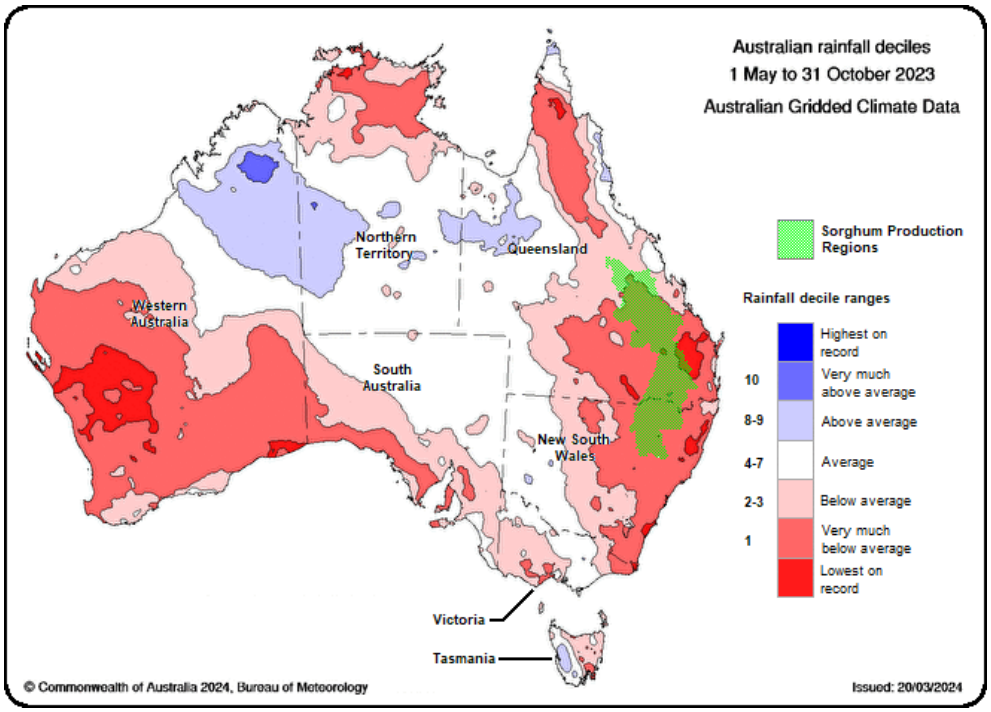
Source: *PSD Online / FAS/Canberra*
Note: *(e) = estimate, (f) = forecast*

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 primary producing regions of southern Queensland and northern New South Wales, the main planting period is from the end of September to October but stretches out to December, with harvest generally between March and June. The northern parts of the sorghum-growing regions of central Queensland have a warmer climate, which allows for a greater planting window, typically from September to as late as February. This gives the region a greater capacity to be more opportunistic with its planting program and improves its chances of a successful crop outcome.

The FAS/Canberra sorghum production estimate for MY 2023/24 has been upward revised to 2.1 MMT from the previous estimate of 1.8 MMT. This large increase has been associated with very favorable growing conditions over recent months after a very challenging start to the season. If realized, this would be 0.5 MMT below the previous two, near-record production years, but 0.5 MMT (31 percent) above the previous 10-year average.

The majority of the sorghum-producing areas had very little sub-surface soil moisture at the start of the planting period. For those in the major sorghum-growing areas of southern Queensland and northern New South Wales, planting is ideally from late September and early to mid-October. In the months leading up to planting and during the typical planting period, the sorghum-producing regions had well below average rainfall (see Figure 14). At the time, limited areas of sorghum were planted, and expectations for planted area and production were low.

Figure 14 – Rainfall Deciles MY 2023/24 Sorghum Crop – May to Oct 2023



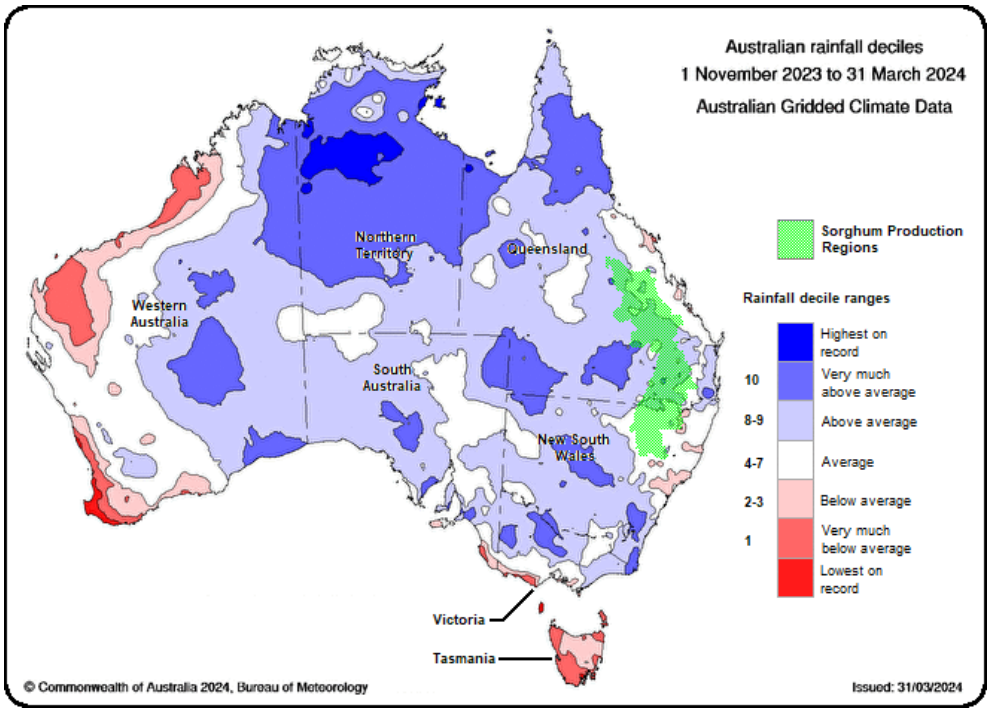
Source: *Australian Bureau of Meteorology / FAS/Canberra*
Note: *MY 2023/24 crop growth period is mainly October 2023 to March 2024*

Fortunes changed after above-average rainfalls in November 2023, resulting in substantial sorghum crops planting. Good rainfalls have continued since November 2023 through to the end of March 2024. Throughout this period, northern New South Wales growers received around average rainfalls, while those in Queensland received above-average rainfalls (see Figure 15). For those in the more northern production areas of central Queensland, with a much wider planting window due to their warmer climate, there are reports of sorghum crop plantings as late as February and early March this year.

The good rains throughout the growing period have supported crop production. Considering the later-than-ideal planting period for the main production areas in the south, yield expectations have strengthened in the lead-up to harvest at the start of April 2024. This situation has led to substantial growth in the FAS/Canberra sorghum production estimate for MY 2023/24.

Around one-fifth of the sorghum crop was harvested prior to a large rain event in the first week of April, affecting southern Queensland and northern New South Wales crops. The impact of the rains was substantial, with large quantities of downgraded quality due to sprouted and discolored grain. A significant amount of grain is reported to have high levels of sprouting, which is feed grade only. Traders have reported difficulty finding export markets for the feed-grade sorghum, which is reportedly being sold domestically, mainly to piggery and poultry producers.

Figure 15 – Rainfall Deciles MY 2023/24 Sorghum Crop – Nov 2023 to Mar 2024



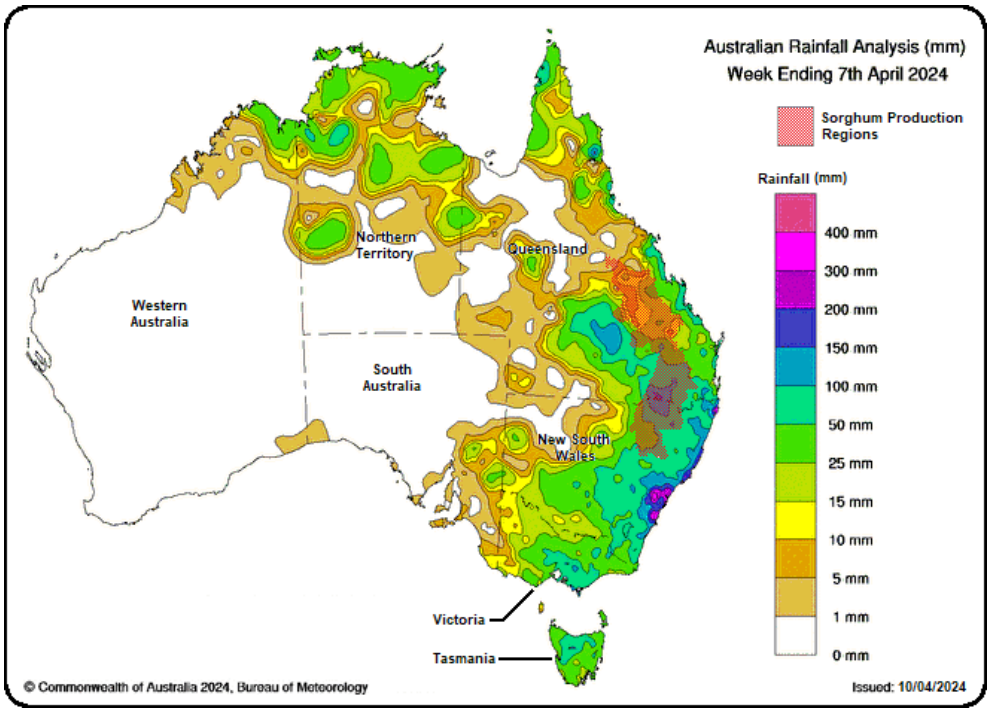
Source: *Australian Bureau of Meteorology / FAS/Canberra*
Note: *MY 2023/24 crop growth period is mainly October 2023 to March 2024*

Consumption

FAS/Canberra forecasts sorghum consumption in MY 2024/25 at 160,000 MT, a 500,000 MT decline from the MY 2023/24 estimate but in line with prior years. The drop relates directly to a spike in estimated domestic livestock feed consumption for MY 2023/24.

The increase in domestic sorghum consumption for MY 2023/24 is due to a rain event in the last week of March 2024 followed by a big rainfall event in the first week of April 2024 (see Figure 16). This coincides with the early harvest period in the major sorghum-producing areas of southern Queensland and northern New South Wales. The rain event resulted in grain sprouting and discoloration, and substantial volumes of sorghum grain have been downgraded for quality. It is anticipated that the heavily downgraded sorghum that is at feed-grade quality will enter the domestic livestock feed sector. However, only relatively small volumes are expected to enter the beef feedlot market. Feedlots have switched to using white grains in their rations due to their higher nutritional quality. Furthermore, many feedlots have not maintained their sorghum processing equipment. There are reports of substantial quantities of feed-grade sorghum being sold directly from farms to piggery and poultry producers at substantially discounted prices.

Figure 16 – Australia Rainfall – April 1-7, 2024



Source: Australian Bureau of Meteorology / FAS/Canberra

Domestic feed consumption of sorghum in Australia has fallen from 2.2 MMT 15 years ago to now, typically be at around 150,000 MT. This has been driven by a decline in demand from the livestock sectors, particularly beef feedlots. This reduced demand has been driven by:

- Overall, improving nutritional ration formulation by feedlots has shifted towards higher quality white grains (wheat and barley).

- Previous droughts where sorghum supply was very low or exhausted, while white grains were able to be sourced. This resulted in feedlots that were still using sorghum to install equipment for the use of white grains. Sorghum milling is much harsher on equipment than white grains, and after switching to using white grains, feedlots are highly unlikely to revert to using sorghum.

- Sorghum is generally a nutritionally lower quality feed for livestock compared to white grains. Sorghum would need to be consistently and substantially lower priced than white grains to encourage feedlots to convert back to using sorghum. Over recent years, sorghum prices have been tracking near the price of feed wheat and feed barley and at times have been priced at a substantial premium due to strong export demand.

FAS/Canberra has upward revised the MY 2023/24 sorghum consumption estimate to 660,000 MT. Although domestic consumption is usually low, the substantial increase, as mentioned earlier, relates to the quality downgrade of the current early harvested sorghum crop associated with a rainfall event in the

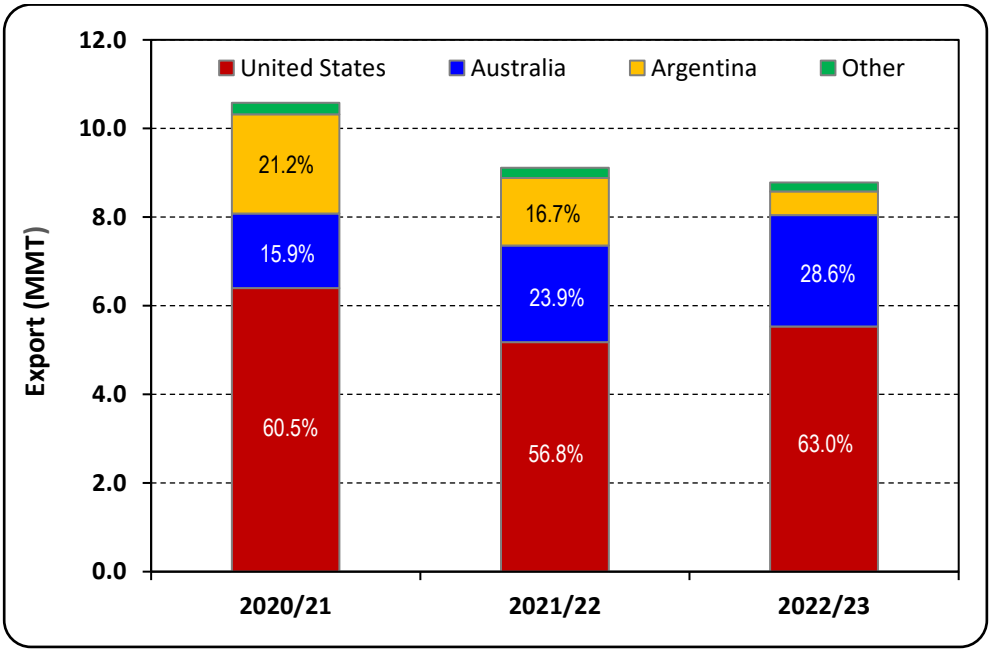
first week of April 2024. The consumption estimate is almost entirely for livestock feed, with none for industrial consumption and 10,000 MT for seed.

Exports

The FAS/Canberra sorghum export forecast for MY 2024/25 is 2.1 MMT, 50 percent higher than the MY 2023/24 estimate of 1.4 MMT. The higher export forecast for MY 2024/25 is due to expectations of slightly higher production but mostly due to the much lower domestic consumption than MY 2023/24. Typically, most of Australia's sorghum production is exported with little domestic consumption. So, export volumes are primarily influenced by production. China has been the primary buyer of Australian sorghum for many years, which is expected to remain the case in the forecast year.

The United States has consistently been the major world exporter of sorghum and in recent years, accounting for around 60 percent of world trade. Australia and Argentina are the other nations that contribute significantly to world exports of sorghum (see Figure 17). With the expectation of a strong sorghum export program in MY 2024/25 Australia is expected to maintain a substantial contributor to the world trade.

Figure 17 – World Sorghum Trade – Australia MY 2020/21 to 2022/23

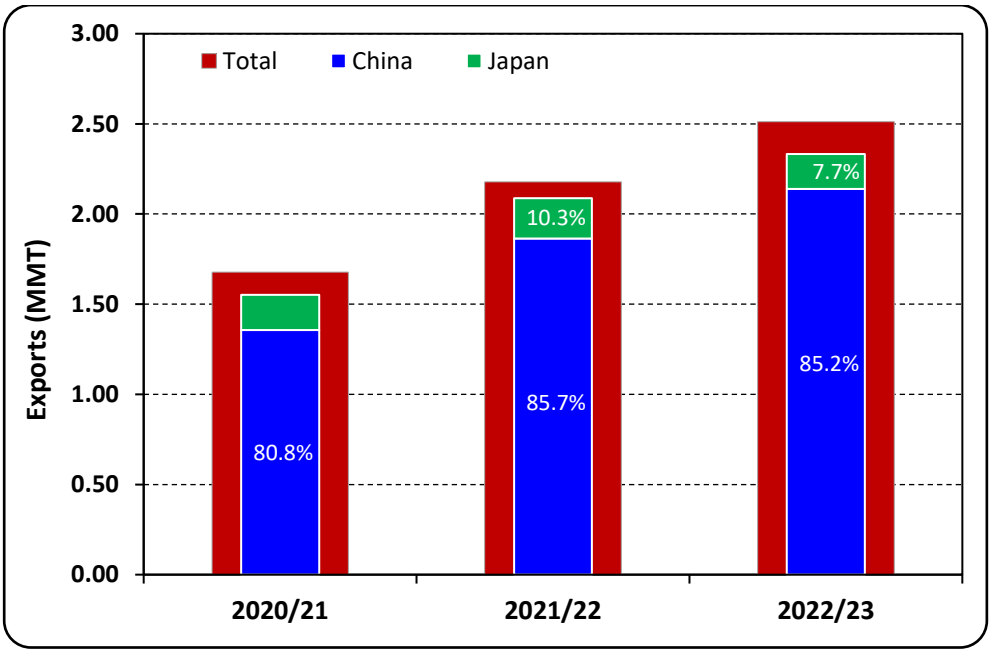


Source: *Trade Data Monitor*
Note: *Australia Marketing Year is March to February*

China has been the major export destination for Australian sorghum since significant Australian exports began around a decade ago. In recent years, China has consistently been the destination for 80-85 percent of Australian sorghum exports. Over the last three years, Japan has become a significant destination at around 10 percent of overall sorghum exports (see Figure 18). For MY 2024/25, with

another big export program anticipated, China and Japan are again anticipated to be the destinations for almost all of Australia's sorghum exports.

Figure 18 – Australian Sorghum Export Destinations MY 2020/21 to 2022/23



Source: Australia Bureau of Statistics

In addition to feed use, one of the primary uses of sorghum in China is the production of 'Baijiu', a whiskey-like white liquor. Baijiu has been produced in China for over 1,000 years and is the most widely consumed spirit in the world.

FAS/Canberra's export estimate for MY 2023/24 has been downward revised to 1.4 MMT from an earlier estimate of 1.5 MMT. This mainly relates to the downgraded quality of sorghum, as previously mentioned. This small downward revision has been offset by a 300,000 MT upward revised production estimate for MY 2023/24.

Stocks

Stocks are forecast to remain relatively stable at a low level in MY 2024/25, mainly due to the anticipation of continued firm export demand.

Table 3 - Production, Supply, and Distribution of Sorghum

Sorghum	2022/2023		2023/2024		2024/2025	
Market Year Begins	Mar 2023		Mar 2024		Mar 2025	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	687	687	600	600	0	600
Beginning Stocks (1000 MT)	331	331	296	346	0	386
Production (1000 MT)	2638	2638	2000	2100	0	2200
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	2969	2969	2296	2446	0	2586
MY Exports (1000 MT)	2513	2513	1700	1400	0	2100
TY Exports (1000 MT)	2752	2752	1700	1400	0	1900
Feed and Residual (1000 MT)	150	100	250	650	0	150
FSI Consumption (1000 MT)	10	10	10	10	0	10
Total Consumption (1000 MT)	160	110	260	660	0	160
Ending Stocks (1000 MT)	296	346	336	386	0	326
Total Distribution (1000 MT)	2969	2969	2296	2446	0	2586
Yield (MT/HA)	3.8399	3.8399	3.3333	3.5	0	3.6667

(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 2024/2025 = October 2024 - September 2025

RICE

Production

FAS/Canberra forecasts milled rice production at 425,000 MT in MY 2024/25, a 4.5 percent decrease from the upward revised MY 2023/24 estimate but almost 25 percent above the previous 10-year average. The forecast production is based on anticipated normal seasonal conditions at planting and the strong likelihood of ample irrigation water availability for the MY 2024/25 rice crop (to be planted from October 2024). If the forecast is realized, it would be the fourth consecutive year of production above the previous 10-year average. This is after irrigation water reserves recovered from the multi-year drought from 2017 to 2019 (see Figure 19).

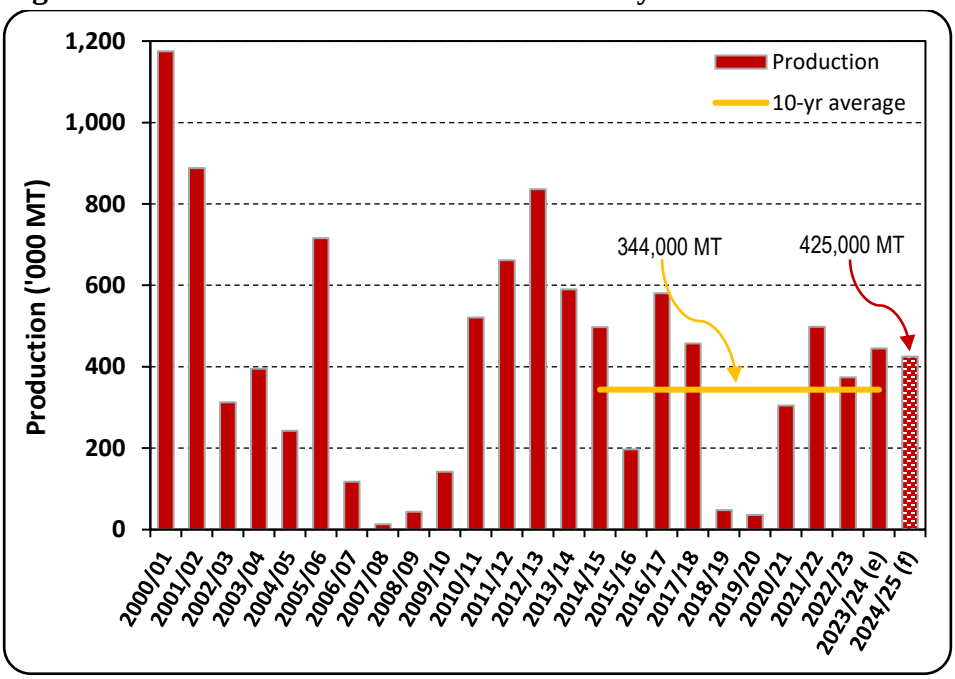
The forecast production is still far below the peak of 1.175 MMT achieved in MY 2000/01. The overall decline in production from this peak is due to a series of factors, including the encroachment of cotton production and the growth in horticulture in the region and other regions. These have all created competition for water resources, and cotton has additionally created competition for land as they have similar planting and harvest periods. The increased competition for water resources has caused a general rise in traded water prices, impacting rice production’s competitiveness.

The industry in Australia mainly produces medium-grain rice. Over recent years, the industry has commercialized a new variety known as Reziq. It was first trialed at a commercial scale in MY 2020/21 and the variety has been improved and is now known as V071. The rice industry indicates that this new variety is over 80 percent of the rice now 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. There is a reduced need for a water blanket at panicle initiation, which has been reported to

reduce crop water use. As a result, rice yields from year to year are likely to be more consistent and at a higher level.

The new cold-tolerant rice variety will support the rice industry's competitiveness, but with the increased competition from cotton production in the region, the rice industry is not expected to return to past levels of production of over 1 MMT. Instead, production at 500,000 MT, a little higher than the MY 2024/25 forecast (425,000 MT), is likely to be at the upper end of the expected peak production in the coming years.

Figure 19 – Australian Rice Production History

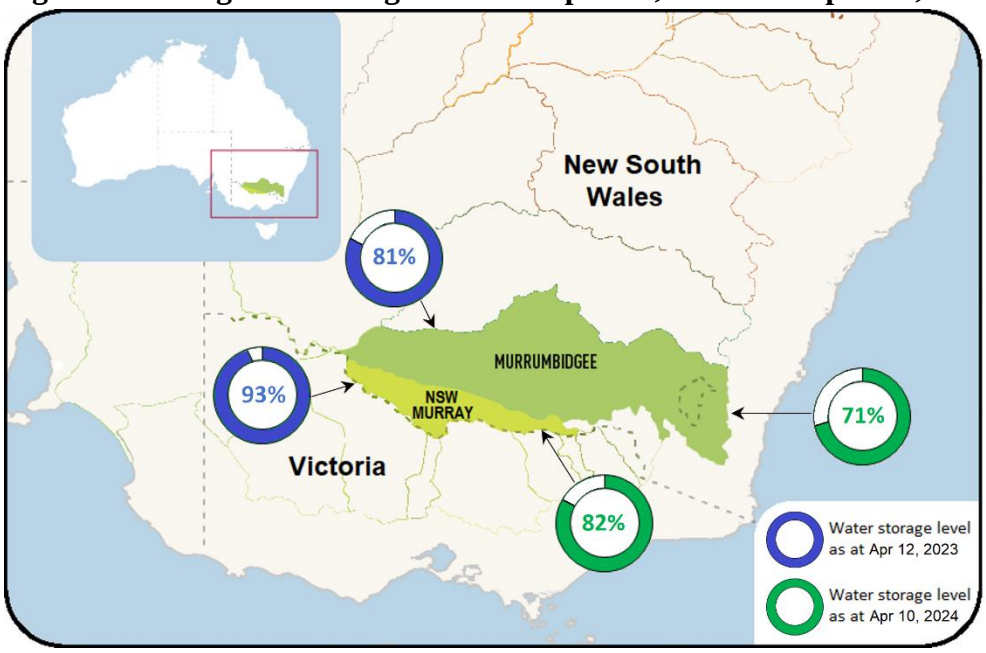


Source: *PSD Online / FAS/Canberra*
Note: *(e) = estimate, (f) = forecast*

The forecast rice harvest area of 60,000 hectares for MY 2024/25 is in line with the MY 2023/24 estimate. The 4.5 percent lower forecast production is from an expected lower yield (similar to the past 10-year average) compared to the above-average yield estimate for MY 2023/24. The seasonal conditions at the start of the MY 2023/24 season were somewhat challenging due to cooler-than-usual conditions at planting and for some weeks afterward. The lower-than-ideal soil temperatures at planting germination were slow, causing replanting in some areas. The cooler-than-usual early conditions hampered crop development. Industry reports that the crop recovered well, with good temperatures from December 2023 to February 2024, followed by high temperatures in March 2024, providing near-ideal growing conditions. The forecast for MY 2024/25 is based on the expectation that typical conditions will prevail for the season, and consequently, a slightly lower yield is anticipated.

The rice industry has now had three successive years of ample water availability, underpinning strong planted area and subsequent production results. The volume of irrigation water in the storage dams that supply the major rice-producing areas is high, even in mid-April at the tail end of the 2023/24 irrigation season (see Figure 20). Although the storage levels on April 10, 2024, are around 10 percent lower than at the same time as the previous year, they are very high, considering it is near the end of the irrigation season. Most water inflows into the storage dams are usually in the late winter and spring months. With such a high level of current water storage, rice producers will be confident of having a high availability of irrigation water for MY 2024/25. They can plan for a big planted area.

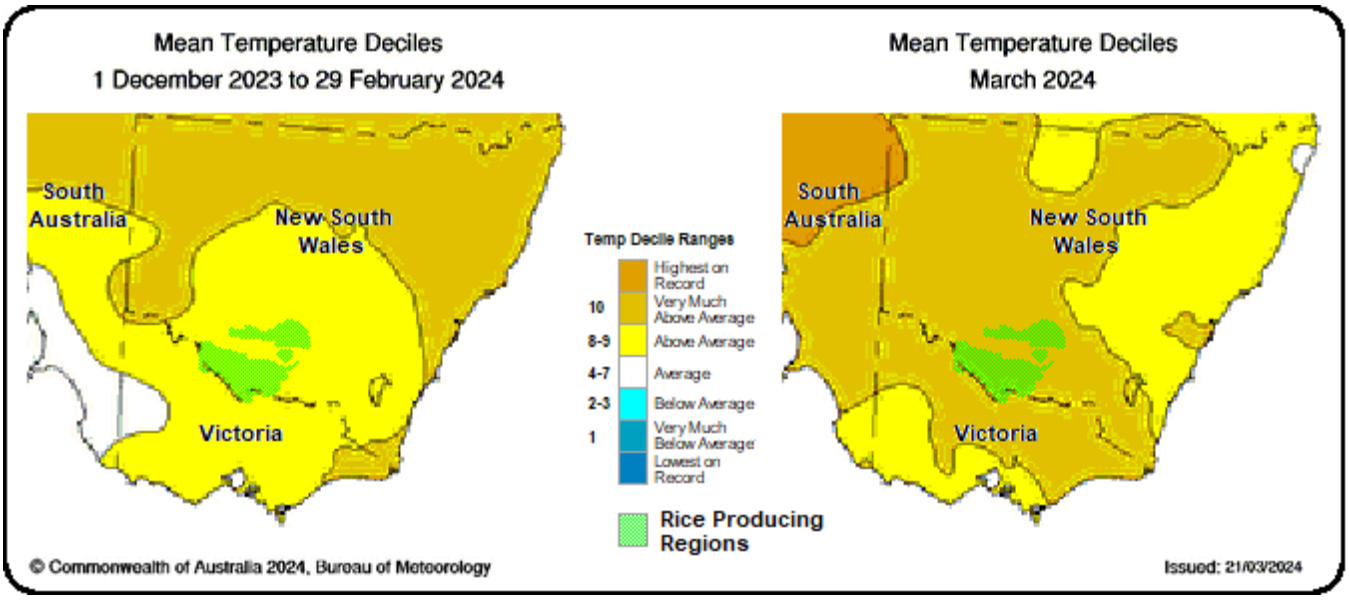
Figure 20 – Irrigation Storage Levels – April 12, 2023 and April 10, 2024



Source: Murray Darling Basin Authority

FAS/Canberra's production estimate of 445,000 MT (milled) for MY 2023/24 has been upward revised from the previous estimate. The revised estimate is 11 percent above the official USDA estimate and the current ABARES estimate for MY 2023/24. The higher estimate is based on near-optimal growing conditions after a cool and slow start to the production season. Crops experienced above-average temperatures from December 2023 to February 2024, followed by a hot March 2024 (see Figure 21) that growers indicate was near optimal for this season's crop. Industry sources indicate that more than half of the crop harvested yields have generally been above average, with exceptional yields of over 16 MT per hectare reported. The FAS/Canberra average yield estimate of 10.30 MT per hectare for MY 2023/24 is 3.6 percent above the previous 10-year average. Based on industry reports, there may be some further upside to this in the final result. However, a large rainfall event in the first week of April 2024 during harvest had some detrimental impact on the quality of some of the rice produced.

Figure 21 – Mean Temperature Deciles – Dec 2023 to Feb 2024 and Mar 2024



Source: Australian Bureau of Meteorology / FAS/Canberra

Consumption

Domestic rice consumption for MY 2024/25 is forecast at 410,000 MT, up marginally from the estimated 400,000 MT for MY 2023/24. The forecasted small increase in consumption is supported by the Australian government, expecting continued strong migration in 2024 but easing from 2023. Migration is expected to remain strong in 2025 but at a slower pace. For Australia migration levels are a primary driver of population growth.

The Australian Bureau of Statistics data shows that the annual population growth to September 30, 2023, was two and a half percent. If per capita rice consumption remains constant, this population growth equates to a growth in overall rice consumption of almost 10,000 MT, which is in line with the forecast.

FAS/Canberra's rice consumption estimate for MY 2023/24 is 400,000 MT, which is also in line with the official USDA estimate.

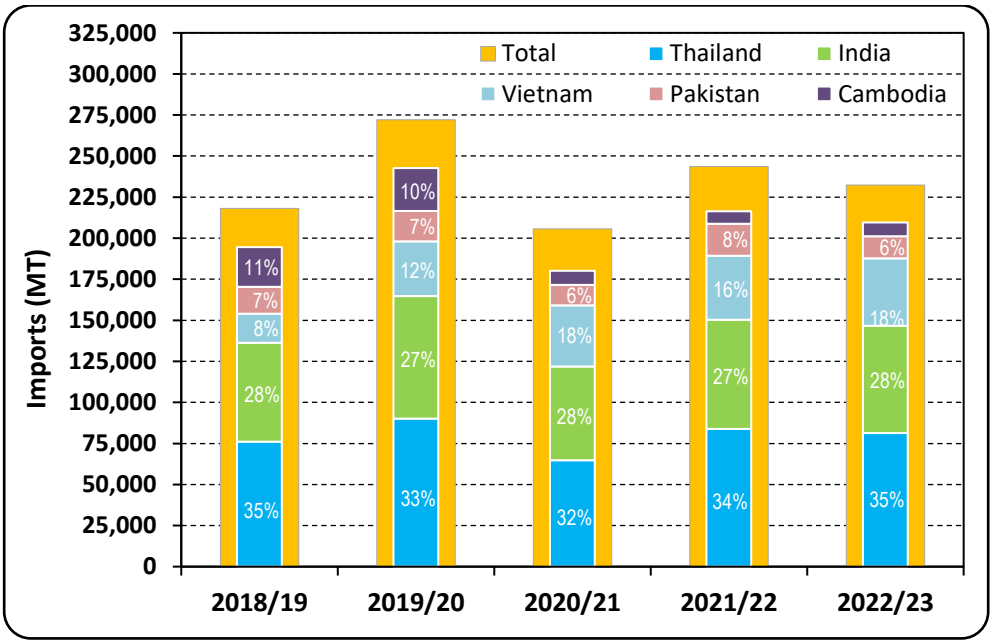
Trade

Imports

FAS/Canberra forecasts rice imports of 220,000 MT in MY 2024/25, a 2.3 percent decline from the MY 2023/24 estimate of 225,000 MT. This decline directly relates to the estimated large increase in rice production for MY 2023/24, from which part of this strong domestic supply will flow into the forecast year. The strong forecast production for MY 2024/25 will also support a reduced demand for imports. Australia's rice production has returned to much improved levels from MY 2021/22 onwards, similar to pre-drought levels. With this, imports are also forecast to decline more in line with earlier levels.

Thailand and India are the two largest rice suppliers to Australia, consistently at almost two-thirds of total imports over the last five years. The other three important sources of rice imports for Australia are Vietnam, Pakistan, and Cambodia. These sources have consistently supplied the majority of Australia's rice needs for many years (see Figure 22), and this is not expected to change in the forecast and estimate years (MY 2024/25 and MY 2023/24) given that there is little change in import demand anticipated.

Figure 22 – Major Rice Import Trend – MY 2018/19 to MY 2022/23



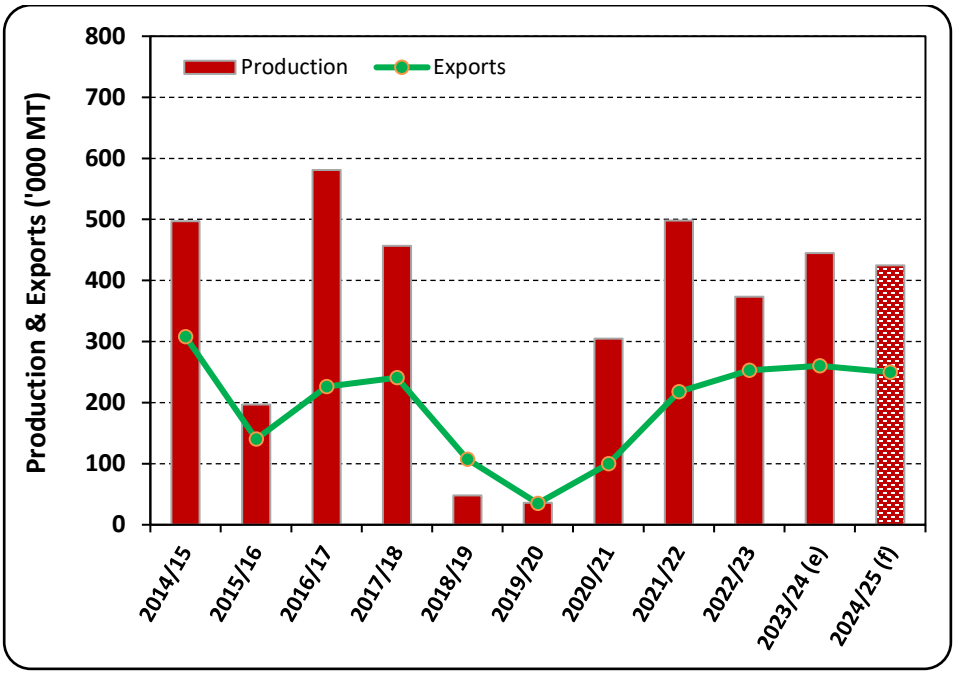
Source: *Australian Bureau of Statistics*

FAS/Canberra's rice import estimate of 225,000 MT for MY 2023/24 is in line with the official USDA estimate. With imports of 232,000 MT in the prior year, a small decline in imports is anticipated after strong growth in rice production for MY 2023/24.

Exports

FAS/Canberra forecasts rice export of 250,000 MT in MY 2024/25, a 10,000-MT (3.8 percent) decrease from the MY 2023/24 estimate. This fall directly relates to the 4.5 percent decrease in forecast rice production. Over the past 10 years, the change in exports from year to year has relatively closely tracked the shift in production (see Figure 23), and this general trend is expected to continue into the forecast year. With fluctuations in production from year to year, there is a flattening effect on export volumes, which relates to the associated lag time from completing harvest to milling and marketing the rice. Some of the rice produced in one marketing year is exported the following marketing year. So, for MY 2024/25, following a high production year, exports are expected to be larger than would otherwise be anticipated. The forecast increase in rice exports is expected to result in Australia maintaining its net exporter position, which it recaptured in MY 2022/23 for the first time since MY 2017/18.

Figure 23 – Australian Rice Production and Export Trends



Source: *Australian Bureau of Statistics / PSD Online / FAS/Canberra*
Note: *(e) = estimate, (f) = forecast*

FAS/Canberra's rice export estimate for MY 2023/24 at 260,000 MT is in line with the official USDA estimate and is a 2.8 percent improvement over the prior year's result of 253,000 MT. The dip in rice production in MY 2022/23 is expected to impact the volume carried over into MY 2023/24, having a drag effect on the export volume even though there is an estimated 19 percent increase in production for MY 2023/24.

Stocks

Rice stocks are estimated to remain relatively stable in MY 2024/25 due to a forecasted strong production outcome. However, overall stocks are not expected to vary greatly from the previous two years after stocks had recovered from a big production year in MY 2021/22 following a multiple-year drought.

Table 4 - Production, Supply, and Distribution of Rice

Rice, Milled	2022/2023		2023/2024		2024/2025	
Market Year Begins	Mar 2023		Mar 2024		Mar 2025	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	52	52	60	60	0	60
Beginning Stocks (1000 MT)	240	240	184	213	0	223
Milled Production (1000 MT)	374	374	400	445	0	425
Rough Production (1000 MT)	519	519	556	618	0	590
Milling Rate (.9999) (1000 MT)	7200	7200	7200	7200	0	7200
MY Imports (1000 MT)	225	232	225	225	0	220
TY Imports (1000 MT)	221	225	220	230	0	220
Total Supply (1000 MT)	839	846	809	883	0	868
MY Exports (1000 MT)	275	253	260	260	0	250
TY Exports (1000 MT)	250	250	260	260	0	250
Consumption and Residual (1000 MT)	380	380	400	400	0	410
Ending Stocks (1000 MT)	184	213	149	223	0	208
Total Distribution (1000 MT)	839	846	809	883	0	868
Yield (Rough) (MT/HA)	9.9808	9.9808	9.2667	10.3	0	9.8333

(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 2024/2025 = January 2025 - December 2025

Attachments:

No Attachments