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Report Highlights:

Australia is set for a third consecutive record grain crop, and strong exports. Wheat production is estimated to have reached a record 37 million metric tons (MMT) in marketing year (MY) 2022/23, while barley is estimated to achieve 13.5 MMT of production, the fourth largest on record. The wheat and barley results were strongly supported by near ideal conditions in Western Australia and South Australia, but this was partially offset by excessive rains in much of the grain-growing regions of New South Wales and Victoria in September and October 2022. Wheat exports in MY 2022/23 are forecast to reach a record 28 MMT. For the summer crops, sorghum production in MY 2022/23 is estimated to achieve 2.9 MMT and, if realized, would be the third largest on record. The rice production forecast has been severely impacted by excessive rains in the lead up to planting, resulting in only around half of the area planted from what was previously expected.

EXECUTIVE SUMMARY

Australia is set for a third consecutive record grain crop, and strong exports including expected record wheat exports. For the winter crops, wheat production is estimated to have reached a record level of 37 MMT in marketing year (MY) 2022/23, while barley is estimated to achieve 13.5 MMT of production, the fourth largest on record and slightly behind the previous year.

The wheat and barley results were strongly supported by near ideal conditions in Western Australia and South Australia. However, this was partially offset by excessive rains in much of the grain-growing regions in New South Wales and Victoria in September and October 2022, which caused flooding and subsequent fungal infestations resulting in a wide range of outcomes from some crops being wiped out through to others having record yields. This has also caused substantial volumes of wheat to be downgraded in quality with a significant increase in the volume of feed-grade wheat expected. Wheat exports in MY 2022/23 are forecast to reach a record 28 MMT. Barley exports are forecast at 8 MMT for MY 2022/23, in line with the previous year's third largest result on record.

For the summer crops, sorghum production in MY 2022/23 is estimated to achieve 2.9 MMT and, if realized, would be the third largest on record and 80 percent above the previous 10-year average. The rice production forecast has been severely impacted by well-above-average rains in the lead up to planting, resulting in only around half of the area planted that was previously expected.

WHEAT

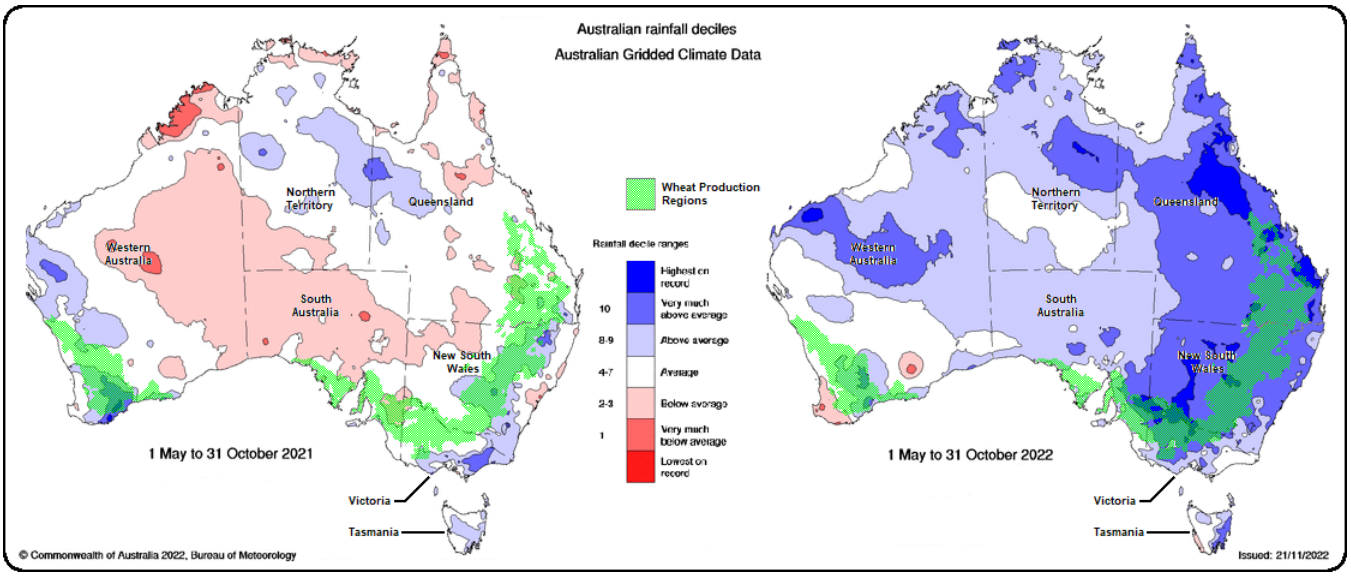
Production

After record-breaking wheat production in MY 2020/21 and MY 2021/22, the estimate for the MY 2022/23 is for another new record of 37 MMT. For the third successive year, seasonal conditions have overall been very favorable across much of the grain growing regions of Australia. Particularly for Western Australia, South Australia, and Queensland, the season brought record or near record wheat production outcomes. However, in parts of New South Wales and Victoria, rain caused flooding and severely damaged some areas, and there were reports of stripe rust at times when the ground was too wet to apply fungicide other than by aerial spraying. These conditions resulted in a big range in crop yield outcomes in these states from crops totally wiped out through to other areas having record breaking yields. The cooler-than-usual conditions leading into harvest, particularly in the eastern states, caused very good grain fill but has also resulted in the harvest running later than usual. By mid-January 2023, most of the harvest was complete and the grain receivals data from the three major grain handlers indicate yet another year of national record production.

Rainfall during the main crop growing period of May to October 2022 across the national wheat growing areas generally had well-above-average to record level rainfalls, far more than for the previous year's record wheat crop (see Figure 1). With wheat planted area estimated to be slightly higher for MY

2022/23 than the prior record producing wheat crop and big rains in the main crop growing period an even bigger wheat crop may have been anticipated for this season.

Figure 1 - Australia Rainfall Deciles – May 1 to October 31, 2021 & 2022



Source: Australian Bureau of Meteorology / FAS/Canberra

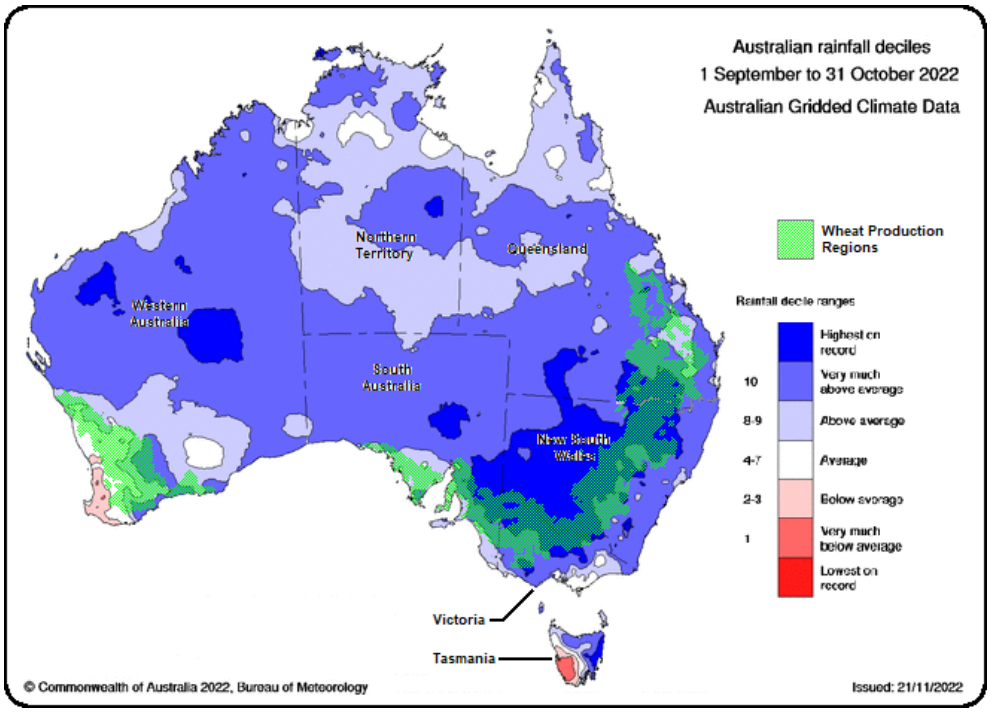
The record production forecast is being driven by larger wheat crops in Western Australia and South Australia, but tempered by a significantly smaller crop in New South Wales, the second largest producing state. The wheat crop in many parts of New South Wales and northern Victoria, was impacted by record level rainfalls in September and October 2022 (see Figure 2). Some crops were inundated by floodwaters causing total crop failure, and others were flooded and remained saturated for too long, creating a total or partial crop failure. Also, the broader impact was creating conditions that were conducive to fungal infections (mainly stripe rust) at a time when many growers were unable to apply fungicides via boom sprays due to the ground being too wet. However, some managed to apply fungicides via aerial spraying.

The conditions that wheat crops in New South Wales and Victoria, which typically represent around 39 percent of the national wheat crop, were exposed to this season have created a much bigger range in yields and grain quality than usual. In some instances, despite large plant biomass creating the potential for big or even record crop yields, fungal infestation severely impacted grain fill producing light grains and well-below-average yields. However, there were also many crops with well drained soils where fungicides were able to be applied in a timely manner, where needed, that reached their potential and growers reported record wheat yields on their properties.

Much of the national wheat crop across Western Australia, South Australia and Queensland was largely unaffected by the big rainfalls in September and October 2022 or at harvest. These states typically

account for around 61 percent of the national crop and their conditions presented minimal crop damage and grain quality challenges.

Figure 2 - Australia Rainfall Deciles – September and October, 2022



Source: Australian Bureau of Meteorology / FAS/Canberra

Grain receivals results from the three major receivers in Australia at mid-January 2022 and 2023, near the end of the national harvest, provides an insight into the MY 2022/23 wheat harvest. The major grain receivers - CBH in Western Australia, Viterra in South Australia, and GrainCorp who operates in Queensland, New South Wales and Victoria - provide weekly data on the intake of all winter crop grains. The major grain handlers account for varying degrees of their respective states winter crop, but for Western Australia (the largest wheat producing state), CBH handles over 90 percent of all winter crops. As a result, the major grain handlers grain intake data provides a very good reference point towards the final wheat production result. Wheat is the major winter grain, which in last year's record crop (MY 2021/22) accounted for 58 percent of winter crop production, so variances in grain intake from one year to the next at a similar stage of harvest provides an indicator of the wheat crop outcome for the current year (MY 2022/23).

Viterra had a record grain receivals year with grain intake of 8.0 MMT by mid-January 2023 compared to 5.6 MMT in the previous year. CBH also reported a record grain intake of 21.7 MMT by mid-January 2023 compared to 21.0 MMT in the prior year. Both of these results demonstrate the bumper crops in South Australia and Western Australia. The GrainCorp grain intake at mid-January 2023, however, is lower than for the same time in 2022 at 10.8 MMT and 12.9 MMT respectively (see Table 1) and illustrates the poorer crop in eastern Australia and in particular New South Wales.

Although the balance of differing grains can change somewhat and there can be variances in on-farm storage from year to year, the receivals data supports an increase in wheat production from MY 2021/22 to a new record level.

Table 1 – Grain Receivals at mid-January for MY 2021/22 and MY 2022/23

		MY 2021/22	MY 2022/23	Variance
Grain Receiver	**State**	Grain Receival (MT) as at:		
		Jan 10, 2022	**Jan 8, 2023**	
CBH	**Western Australia**	21,000,000	21,715,000	+ 715,000
		Jan 9, 2022	**Jan 8, 2023**	
Viterra	**South Australia**	5,644,875	7,980,705	+ 2,335,830
		Jan 17, 2022	**Jan 16, 2023**	
GrainCorp	**Queensland**	1,755,320	2,141,500	+ 386,180
	New South Wales	7,535,570	4,859,990	- 2,675,580
	Victoria	3,575,420	3,814,780	+ 239,360
	TOTAL	**39,511,185**	**40,511,975**	**+ 1,000,790**

Source: GrainCorp, Viterra and CBH web sites

Consumption

FAS/Canberra's forecast for Australian wheat consumption in MY 2022/23 is 8.5 MMT and in line with the USDA forecast. With yet another good year of pasture production expected to be maintained into MY 2022/23 there is little expectation of any significant shift in livestock feed demand, while milling demand is expected to remain stable.

After the rain impact on the wheat harvest in September and October 2022, across much of New South Wales and Victoria, it became evident that there would be a significant impact on production and yields. These two states, along with Queensland (a relatively small producer of wheat), typically supply the majority of the domestic consumption requirements for livestock feeds and milling wheat. These three states are expected to produce well over 16 MMT for MY 2022/23 which is more than ample to meet domestic consumption needs. However, it is reported that the quality of some of the feed wheat will not be of adequate quality for livestock feed requirements in Australia, but there is strong demand for feed grains on the export market.

The beef cattle industry is a major feed wheat consumer and has broadly been enjoying very good pasture production for almost three years. With strong tropical wet season rains in January 2023 in northern Australia causing widespread flooding (not unusual during the wet season), it will also establish very strong pasture production in these regions which will support further herd rebuilding. This will encourage continued grassfed cattle production and is expected to limit the growth in feedlot cattle numbers in MY 2022/23. There are no significant changes anticipated in feed wheat demand from the dairy, poultry, and swine industries which could have any impact on overall consumption. Also, with big

production years for wheat, barley, and sorghum - the main feed grains in Australia - there is no expectation of any significant divergence of relative pricing between these grains that would encourage any significant substitution of one grain for another. With this, similar feed wheat consumption of 5 MMT is anticipated for the forecast year as estimated for MY 2021/22.

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

FAS/Canberra's wheat consumption estimate for MY 2021/22 is 8.5 MMT and in line with the official USDA estimate.

Exports

After achieving a second successive year of record wheat exports of 27.5 MMT in MY 2021/22 from 23.8 MMT in MY 2020/21, FAS/Canberra anticipates Australia to achieve a new wheat export record in MY 2022/23 of 28 MMT. This estimate is 500,000 metric tons (MT) higher than the official USDA forecast, largely due to the higher production anticipated by FAS/Canberra for MY 2022/23, the improving grain logistics capabilities in Western Australia, continued strong global import demand and a very strong start to the first two months (October and November 2022) of exports.

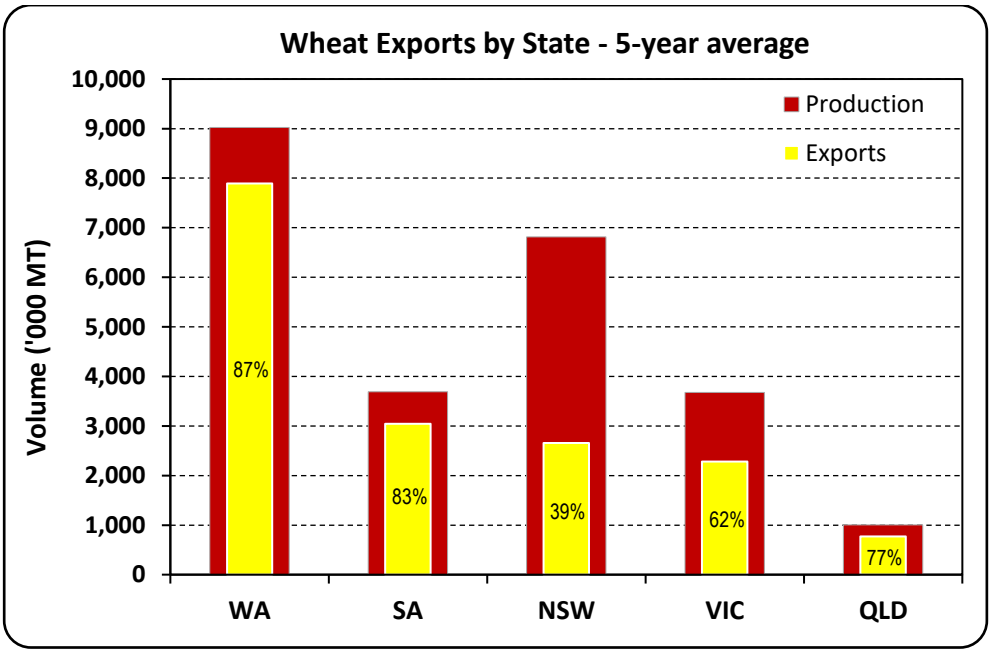
Exports for the first two months of MY 2022/23 achieved 3.8 MMT, compared to 3.0 MMT at the same time in the previous year. In part this related to the need for grain handlers to move their stock to make space for the record production achieved this season, enabled by improvements in grain handling infrastructure at some Western Australian grain receival sites which supported increased capacity, but also due to continued strong world demand for wheat.

Another factor expected to support exports is the location in Australia of the bumper wheat crops this marketing year. As mentioned, South Australia and Western Australia have experienced stronger production, and in these regions the vast majority of wheat harvested goes for export. For example, during last year's (MY 2021/22) comparative big production and export year, 83 percent of South Australian wheat production was exported, and the share was even higher for Western Australia at 87 percent (see Figure 3). This is because there is limited domestic consumption (either flour milling or feed consumption) in these regions. For New South Wales (the second largest wheat producing state), because of its strong domestic consumption a much lower percentage of its crop is exported, with only 39 percent being exported last year. As a result, although New South Wales will see a sharply lower wheat crop in MY 2022/23, this will have a smaller influence on the national export volume.

Although there has been an increased amount of feed wheat produced in MY 2022/23 due to rainfalls at harvest in parts of the country, it is not anticipated to negatively impact on exports. Indications are that

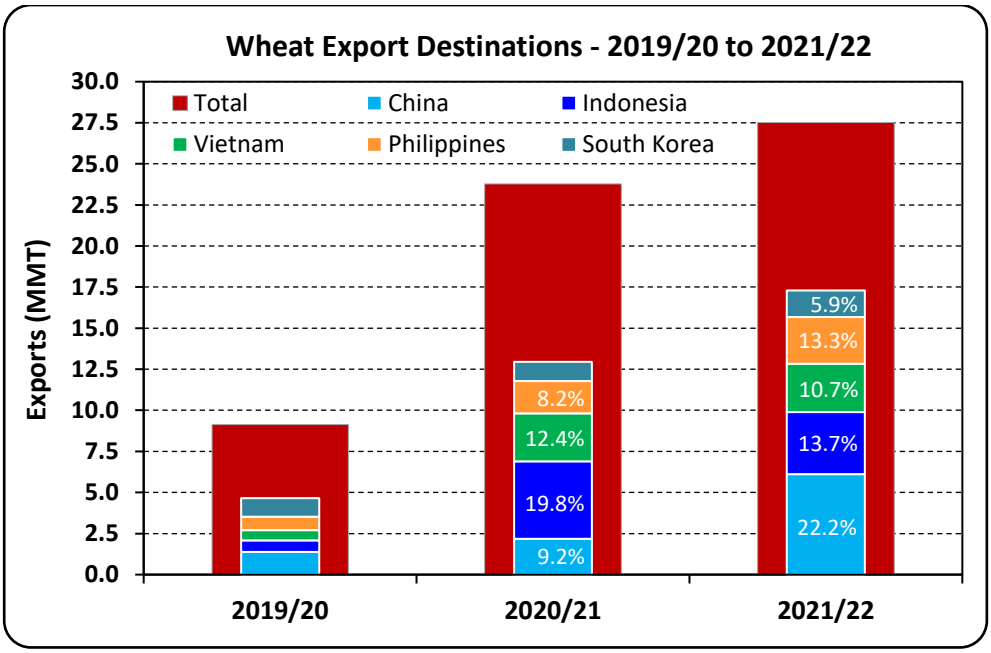
there is strong world demand for feed grains which will readily take up any additional supply from Australia.

Figure 3 - Wheat Export Share of Production by State –MY 2021/22



Source: *Australia Bureau of Statistics*

Figure 4 - Australia Wheat Export Destinations – MY 2019/20 to MY 2021/22

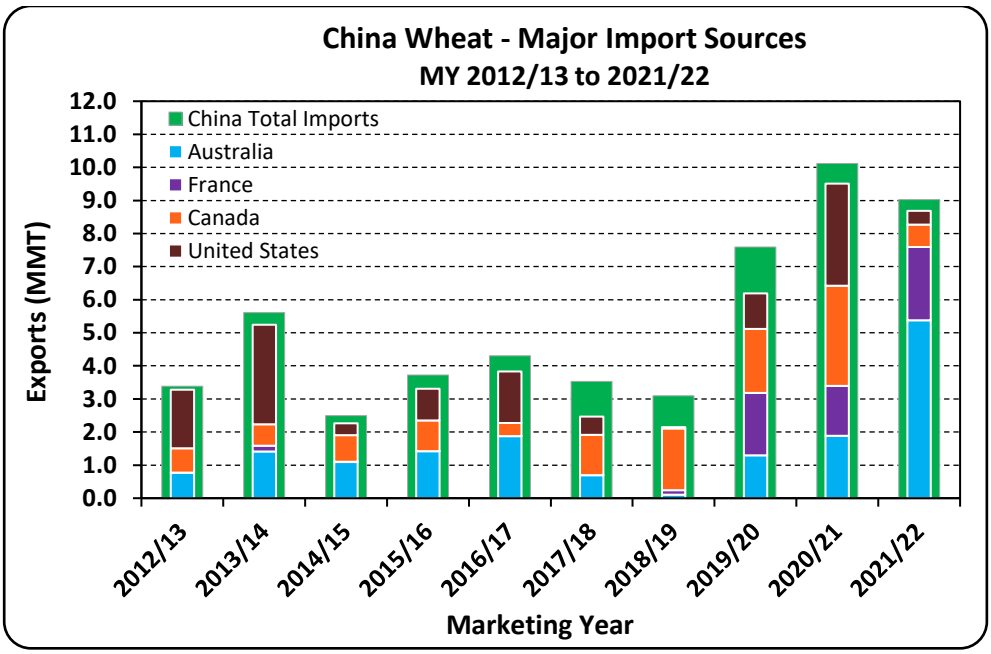


Source: *Australia Bureau of Statistics*

Australia has over 50 wheat export destinations, but the top 10 destinations accommodate 70 to 80 percent of annual exports. The majority of exports in MY 2021/22 were to the traditional market base in the Asian region, but there were also smaller exports to many African nations which is typically the case in past years. For over two decades Indonesia has been Australia's largest wheat export market by far, but in MY 2021/22 China became the largest destination (see Figure 4) with 6.1 MMT (22 percent) compared to Indonesia at 3.8 MMT (14 percent).

The big increase in China's imports of Australian wheat have come in conjunction with a large jump in overall wheat imports by China over the past three years. However, for MY 2021/22, with a lack of export supply from Canada in particular after a drought year, China substantially ramped up the volume of imports from Australia to meet its demand (see Figure 5).

Figure 5 – China Wheat Imports– MY 2012/13 to 2021/22



Source: Australia Bureau of Statistics

For the first two months of MY 2022/23 (October and November 2022) China's wheat imports from Australia was 652,462 MT, double the volume of the same time in the previous year (324,646 MT).

Imports

FAS/Canberra's wheat import estimate for MY 2022/23 remains low at 200,000 MT and aligned with the official USDA outcome. 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 increase as a result of a third successive record year of production despite also anticipating three successive years of record exports. FAS/Canberra forecasts MY 2022/23 ending stocks to increase to 4.3 MMT from 3.6 MMT in 2021/22.

Despite the increase, considering three straight bumper crops, there has still only been a relatively minor stock build up. This has been due to the strong world demand for wheat and the improvements made to grain handling logistics in Western Australia, the largest producing state (and also the most dependent on the export market).

FAS/Canberra's estimate of the MY 2021/22 ending stock of wheat is 3.5 MMT, in line with the USDA official estimate.

Wheat	2020/2021		2021/2022		2022/2023	
Market Year Begins	Oct 2020		Oct 2021		Oct 2022	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	12643	12643	13039	13039	13000	13000
Beginning Stocks (1000 MT)	2678	2678	3001	3026	3501	3561
Production (1000 MT)	31923	31923	36347	36347	36600	37000
MY Imports (1000 MT)	198	198	210	200	200	200
TY Imports (1000 MT)	464	464	196	196	200	200
TY Imp. from U.S. (1000 MT)	1	1	1	1	0	0
Total Supply (1000 MT)	34799	34799	39558	39573	40301	40761
MY Exports (1000 MT)	23773	23773	27532	27512	27500	28000
TY Exports (1000 MT)	19720	19720	25958	25958	28500	29500
Feed and Residual (1000 MT)	4500	4500	5000	5000	5000	5000
FSI Consumption (1000 MT)	3525	3500	3525	3500	3550	3500
Total Consumption (1000 MT)	8025	8000	8525	8500	8550	8500
Ending Stocks (1000 MT)	3001	3026	3501	3561	4251	4261
Total Distribution (1000 MT)	34799	34799	39558	39573	40301	40761
Yield (MT/HA)	2.525	2.525	2.7876	2.7876	2.8154	2.8462

(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 2022/2023 = July 2022 - June 2023

BARLEY

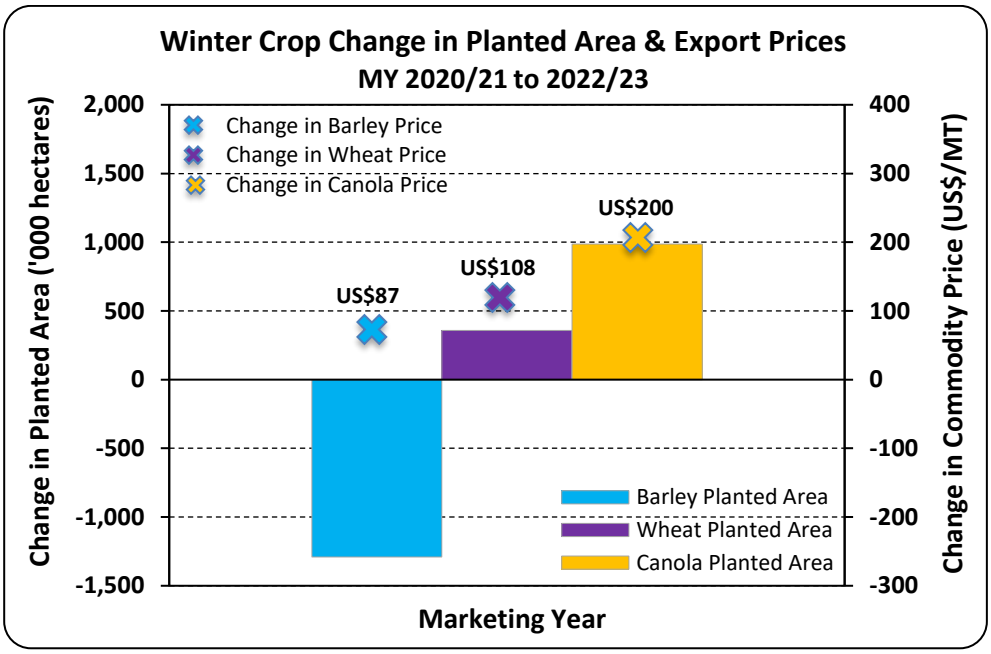
Production

FAS/Canberra's barley production estimate is 13.5 MMT, 100,000 MT above the official USDA official estimate for MY 2022/23. This is a 406,000 MT decline from the MY 2021/22 estimate, but if realized, the MY 2022/23 crop would still be the fourth largest on record with the largest being 14.6 MMT recently set in MY 2020/21.

The big rise in canola prices over the last two years, along with ample sub-surface moisture at the start of planting, has driven a large increase in planted area of canola and to a lesser degree wheat. This has been at the expense of the barley planted area (see Figure 6). Over the last two years the planted area of

wheat has been high at around 3-4 times that for barley and canola. Wheat is the preferred winter grain crop as it is seen as the best reward for risk crop over barley.

Figure 6 – Winter Crop Change in Planted Area and Prices
MY 2020/21 to 2022/23

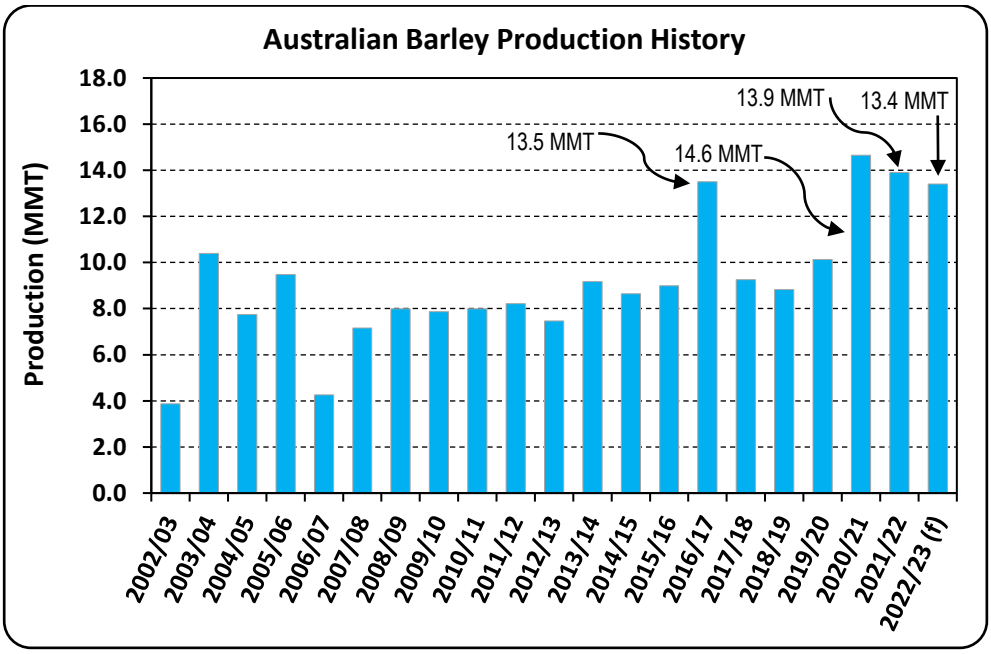


Source: *Australia Bureau of Statistics*
Note: *Price is the average annual export price. For MY 2022/23 wheat and barley is marketing year to date and canola is set as equivalent MY to Wheat (Oct-Nov 22).*

Despite China imposing an 80.5 percent duty on imports from May 18, 2020, for a period of five years, the last three years have produced three of the four largest barley crops on record (see Figure 7), and the duties seem to have had limited impact on farmers sentiment towards continuing to use barley in their crop rotations. If not for the high canola prices over recent years, there may have been a bigger planted area of barley over recent years.

Western Australia and South Australia had near ideal winter crop growing conditions for MY 2022/23 producing record results. However, similar to wheat, barley crops mainly in New South Wales and northern Victoria were impacted by large rainfalls in September and October 2022 (see Figure 2) which led to flooding and fungal disease infestations. This had an impact on the quality of barley grain, however most of the barley produced in New South Wales is typically for feed grain, mainly supplying beef feedlots and dairy farm requirements in the eastern states of Australia. The livestock industry requires good quality feed grains in their rations to maintain high energy density, so some of the downgraded feed barley will not be of adequate quality for the livestock industry and will instead be exported.

Figure 7 – Australian Barley Production Trend



Source: PSD Online / FAS/Canberra

Consumption

FAS/Canberra's barley consumption estimate for MY 2022/23 is 6 MMT, in line with the official USDA estimate and MY 2021/22. Domestic consumption for malting purposes is relatively stable with livestock feed consumption being the main variant from year to year.

Similar to feed wheat, the beef cattle industry is a major feed barley grain consumer. The beef cattle industry has broadly had very good pasture production over the last three years. Based on current conditions and rainfall forecasts in the coming months, strong pasture production is expected to carry through into MY 2022/23. As mentioned earlier for wheat consumption, with these pasture production conditions there is little expectation of any significant change in livestock feed grain demand for 2022/23. There is also no expectation of substituting one grain for another as there is no significant relative price shifts between the feed grains anticipated. On this basis, a similar feed barley consumption of 4.5 MMT is estimated for MY 2022/23.

Domestic barley consumption for malt production has been relatively stable over recent years at around 1.5 MMT. This volume of consumption is not expected to change for MY 2022/23.

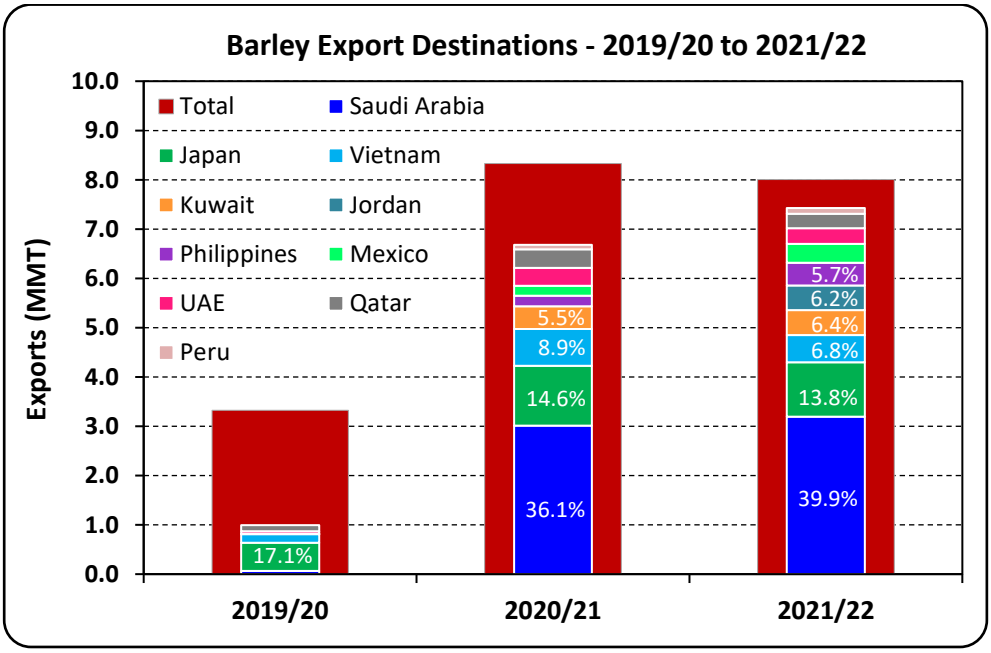
FAS/Canberra's consumption estimate for MY 2022/23 is 6 MMT, 300,000 MT higher than the official USDA estimate. This variance is due to FAS/Canberra having a higher feed consumption estimate.

Exports

Australia's barley exports for MY 2022/23 are estimated at 8.0 MMT, 500,000 MT higher than the official USDA estimate but in line with the outcome for MY 2021/22. Although the forecast for MY 2022/23 barley production is moderately lower (400,000 MT) than the previous year, with relatively high opening stocks due to high production over the previous two years and strong global demand, the pace of exports is expected to remain strong.

Since MY 2019/20, when the full impact of China's Commerce Ministry imposing an 80.5 percent duty on Australian barley in May 2020 started to become evident, Australia has diversified its barley export destinations. Over the last two marketing years (MY 2020/21 and MY 2021/22) export destinations have been stable with Saudi Arabia being the major destination followed by Japan and Vietnam. Combined they have accounted for 60 percent of overall exports (see Figure 8). The top 10 export destinations have almost all been to the Middle East and Asia.

Figure 8 – Major Barley Export Destinations MY 2019/20 to 2021/22



Source: Australia Bureau of Statistics

With another big year of barley production in MY 2022/23 combined with an anticipation of continued strong world demand for feed grains and a spread of export customers established, there is industry confidence that exports will remain strong in line with recent past results. Exports in the first month of MY 2022/23 (November 2022) have started strongly at a little below the same month in the previous year but are well above the results for the previous 10 years.

Exports for MY 2021/22 were 8.0 MMT and in line with the official USDA estimate. The final result is a little lower than earlier estimates which related to an unexpected low export result for October 2022.

Nevertheless, this is the third largest barely export year on record, with the largest being 9.2 MMT in MY 2016/17 and the second highest of 8.3 MMT in MY 2020/21.

Stocks

Australia's ending stocks of barley in MY 2022/23 are expected to decline by 500,000 MT as a result of another big year of exports anticipated along with an expected 400,000 MT decline in production, while consumption remains stable.

Barley	2020/2021		2021/2022		2022/2023	
Market Year Begins	Nov 2020		Nov 2021		Nov 2022	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	5491	5491	4417	4417	4200	4200
Beginning Stocks (1000 MT)	2711	2711	2518	3029	2717	2928
Production (1000 MT)	14649	14649	13906	13906	13400	13500
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	17360	17360	16424	16935	16117	16428
MY Exports (1000 MT)	8342	8331	8007	8007	7500	8000
TY Exports (1000 MT)	8007	8689	8233	8233	7500	8000
Feed and Residual (1000 MT)	5000	4500	4200	4500	4500	4500
FSI Consumption (1000 MT)	1500	1500	1500	1500	1500	1500
Total Consumption (1000 MT)	6500	6000	5700	6000	6000	6000
Ending Stocks (1000 MT)	2518	3029	2717	2928	2617	2428
Total Distribution (1000 MT)	17360	17360	16424	16935	16117	16428
Yield (MT/HA)	2.6678	2.6678	3.1483	3.1483	3.1905	3.2143

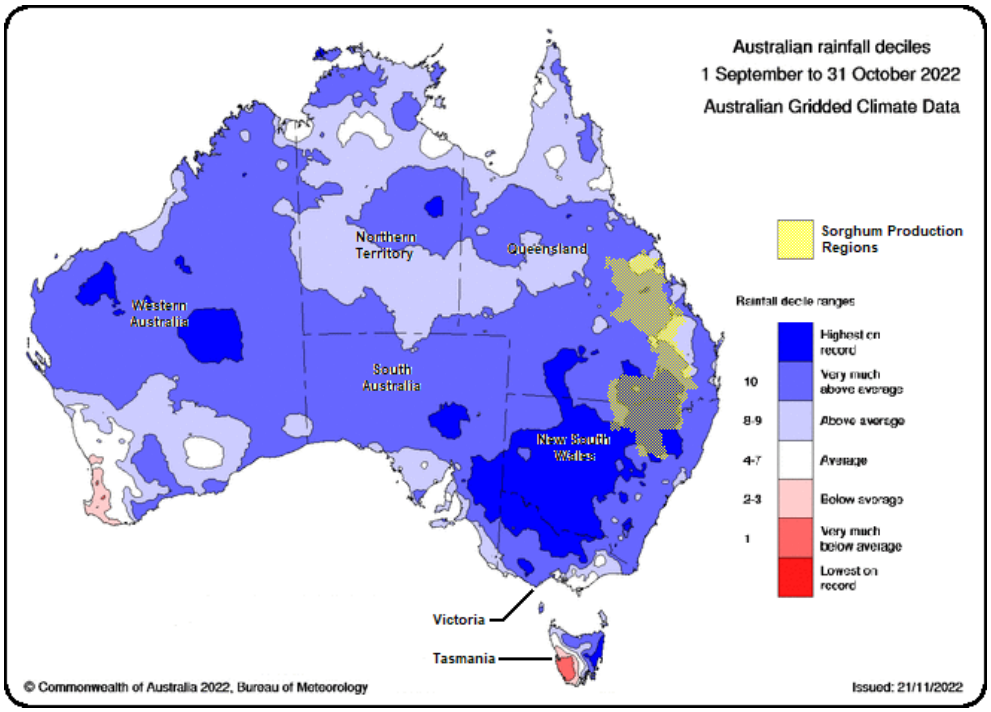
(1000 HA), (1000 MT), (MT/HA)
MY = Marketing Year, begins with the month listed at the top of each column
TY = Trade Year, which for Barley begins in October for all countries. TY 2022/2023 = October 2022 - September 2023

SORGHUM

Production

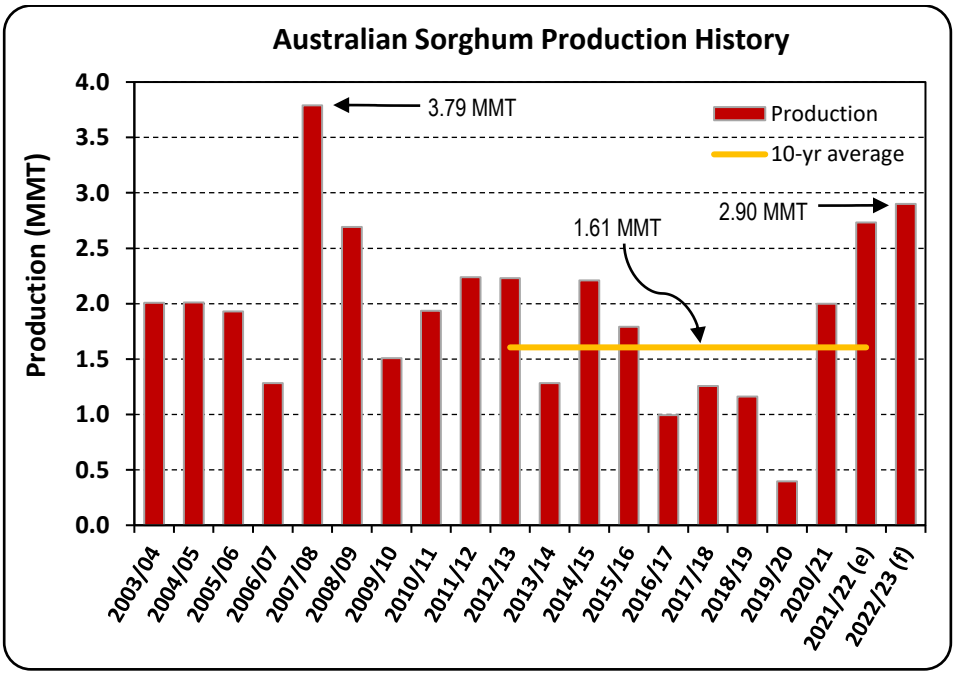
The FAS/Canberra sorghum production estimate for MY 2022/23 has been upward revised to 2.9 MMT and is in line with the official UDSA estimate. If realized this would be the second highest on record, but well below the record of 3.8 MMT set in MY 2007/08. The upward revised production has been driven by well-above-average rainfalls during the main planting period in September/October 2022 (see Figure 9). This has provided ample sub-surface moisture for crop growth towards the grain fill period, during which some additional rainfall would be welcome. Also, despite the main planting period being too wet for some planting there are reports that there has been substantial late-planted sorghum. With harvest commencing in late January in the main production region of southern Queensland and soon after in northern New South Wales, yield estimates are firming.

Figure 9 - Australia Rainfall Deciles – September and October, 2022



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

Figure 10 – Australian Sorghum Production and Yield History



Source: *PSD Online / FAS/Canberra*

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

The revised production estimate of 2.9 MMT is around 80 percent above the previous 10-year average (see Figure 10). FAS/Canberra estimates harvested area at 740,000 hectares, significantly below the official USDA estimate of 840,000 hectares. This is due to the wet conditions during the main planting window preventing some of the planned plantings from proceeding and by the time conditions dried out enough some considered it too late to proceed with planting. However, the benefit of the wet conditions at planting is that there was ample sub-surface moisture to carry the crop through to grain fill with limited in crop rainfall which has supported improved yields forecast.

Consumption

FAS/Canberra forecasts sorghum consumption in MY 2022/23 at 510,000 MT, and in line with the official UDSA forecast. This is 250,000 MT higher than the MY 2021/22 estimate. With another big sorghum crop forecast for MY 2022/23 there is an expectation that sorghum prices may become a little more competitive against domestic feed wheat and barley, which are also expected to be in plentiful supply, resulting in a small increase in sorghum consumption from the prior year.

Industrial consumption of sorghum for the production of fuel ethanol is not expected to resume as the only processing facility in Australia remains mothballed. The facility in the past has consumed around 150,000 MT of sorghum, but sorghum prices remain too high to attract the recommissioning of the facility.

FAS/Canberra's sorghum consumption estimate for MY 2021/22 is 260,000 MT, 150,000 MT higher than the official USDA estimate. This is largely a result of stronger carry in stocks and expectations that although domestic consumption is just a small share of total production (10 percent), due to sorghum production areas being located in key livestock production areas, there are still quantities going for feed use.

Exports

The FAS/Canberra sorghum export forecast for MY 2022/23 has been upward revised to 2.4 MMT, and in line with the USDA official estimate. This has been driven by the upward revised production forecast and supported by the strong sorghum export program achieved to date in MY 2021/22 along with an expectation of continued strong demand into the forecast year.

The MY 2022/23 production estimate has been revised to 2.9 MMT, from the previous year of 2.7 MMT. This increase has led to an increase in available sorghum for consumption or export. Although consumption is expected to rise, it is anticipated to remain relatively low mainly due to the dynamics of an increase in feedlots converting to white grain use during the previous drought and little inclination to revert back to using sorghum.

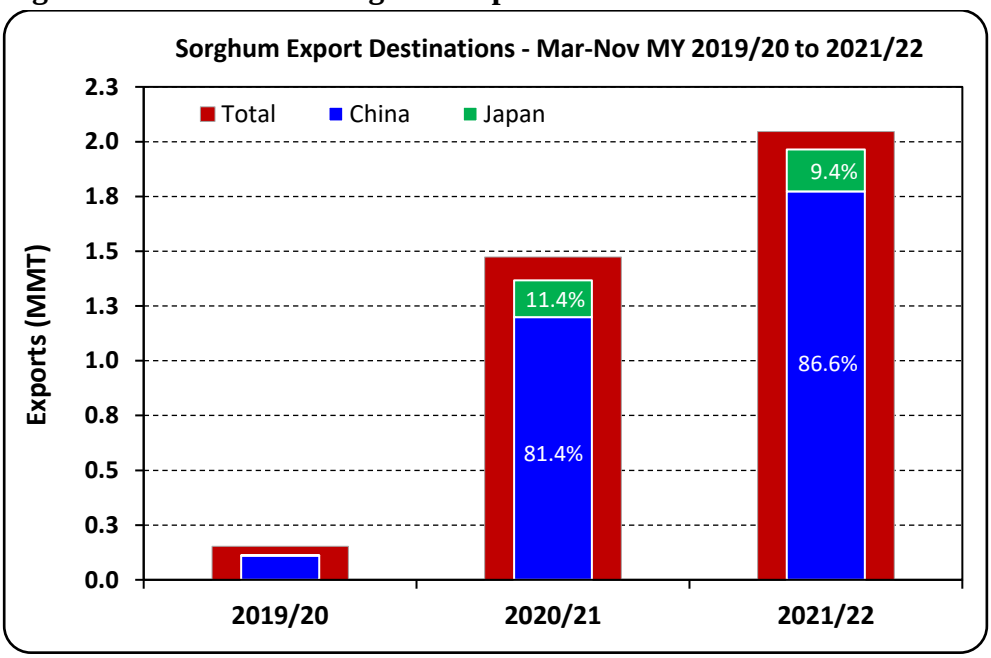
The rate of exports in the first nine months of MY 2021/22 has been very strong at 2.05 MMT, and well above previous expectations. This has been driven by the strength of world feed grain demand which is

anticipated to remain strong in the coming months and into the forecast year, supporting the export forecast.

FAS/Canberra's export estimate for MY 2021/22 is 2.3 MMT and is in line with the official USDA estimate. As mentioned, exports for the first nine months of MY 2021/22 (March to November 2022) are at 2.05 MMT. Although the rate of exports is anticipated to slow in the final three months of the marketing year awaiting new season stock to replenish supply, the pace of exports is expected to achieve the full year estimate.

China is traditionally the major export destination for Australian sorghum, historically accounting for well over 80 percent of overall exports. Notably, Japan has become a significant export destination since MY 2020/21 at around 10 percent of overall exports (see Figure 11).

Figure 11 – Australian Sorghum Exports – March to November MY 2019/20 to 2021/22



Source: *Australia Bureau of Statistics*

Stocks

Stocks are estimated to increase somewhat but remain relatively low in MY 2022/23 despite a large increase in estimated production, due to strong anticipated export demand.

Sorghum	2020/2021		2021/2022		2022/2023	
Market Year Begins	Mar 2021		Mar 2022		Mar 2023	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	573	573	624	624	840	740
Beginning Stocks (1000 MT)	154	154	20	166	343	339
Production (1000 MT)	1639	2000	2733	2733	2900	2900
MY Imports (1000 MT)	0	0	0	0	0	0
TY Imports (1000 MT)	0	0	0	0	0	0
TY Imp. from U.S. (1000 MT)	0	0	0	0	0	0
Total Supply (1000 MT)	1793	2154	2753	2899	3243	3239
MY Exports (1000 MT)	1678	1678	2300	2300	2400	2400
TY Exports (1000 MT)	1235	1235	2270	2270	2400	2330
Feed and Residual (1000 MT)	85	300	100	250	500	500
FSI Consumption (1000 MT)	10	10	10	10	10	10
Total Consumption (1000 MT)	95	310	110	260	510	510
Ending Stocks (1000 MT)	20	166	343	339	333	329
Total Distribution (1000 MT)	1793	2154	2753	2899	3243	3239
Yield (MT/HA)	2.8604	3.4904	4.3798	4.3798	3.4524	3.9189

(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 2022/2023 = October 2022 - September 2023

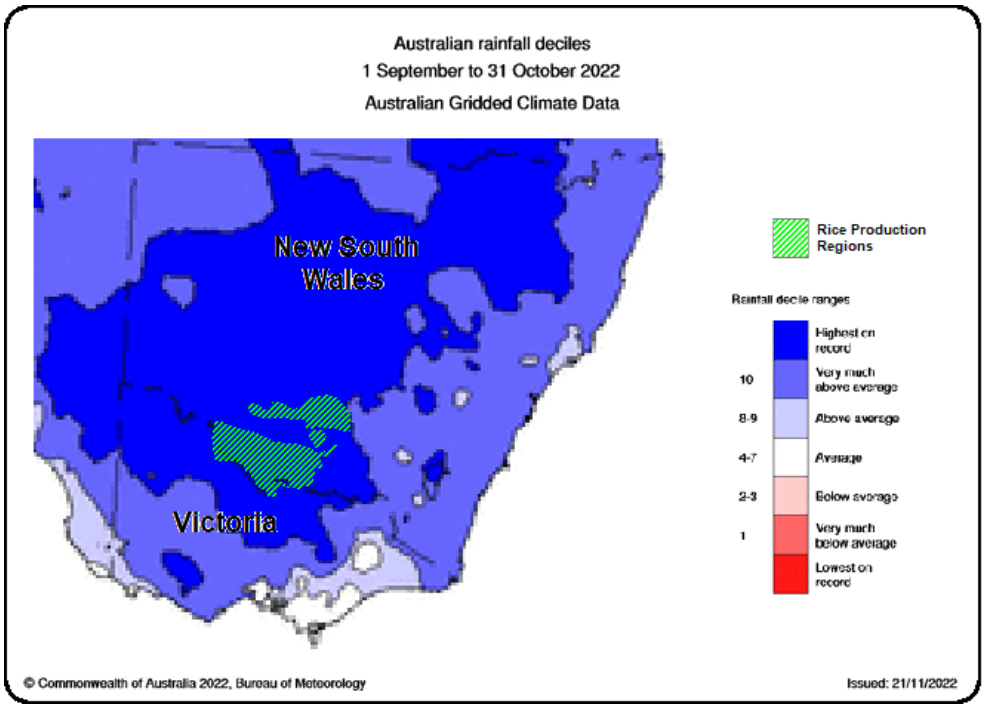
RICE

Production

FAS/Canberra's milled rice production for MY 2022/23 is estimated at 288,000 MT and in line with the official UDSA estimate, but is a 42-percent (212,00 MT) decline from the MY 2021/22 estimate. Expectations for MY 2022/23 prior to planting in spring 2022 (October and early November) were for around double the current estimate. This huge drop in production for MY 2022/23 is the result of a very wet spring 2022 period which prevented rice producers from planting their intended area to rice. There may also be a small negative yield impact from cooler-than-usual conditions in the early to mid-growth phase of the crop. However, more typical summer weather has started prevailing from early January 2023, which may largely counter the earlier cooler-than-usual conditions.

Rice is typically planted in October with some later varieties planted through to around mid-November. This is a relatively short but well-established planting window for the main rice producing regions in Australia to optimize the likelihood of a successful outcome. In the planting period in 2022, soils were saturated after a third successive year of well-above-average rainfall, and this was amplified by at or near record levels of rainfall in September and October 2022 (see Figure 12). This prevented producers from preparing and sowing their planned area of rice. Industry sources indicate that producers managed to sow only around half of their intended rice crop area for MY 2022/23.

Figure 12 – Australia Rainfall Deciles – September and October, 2022

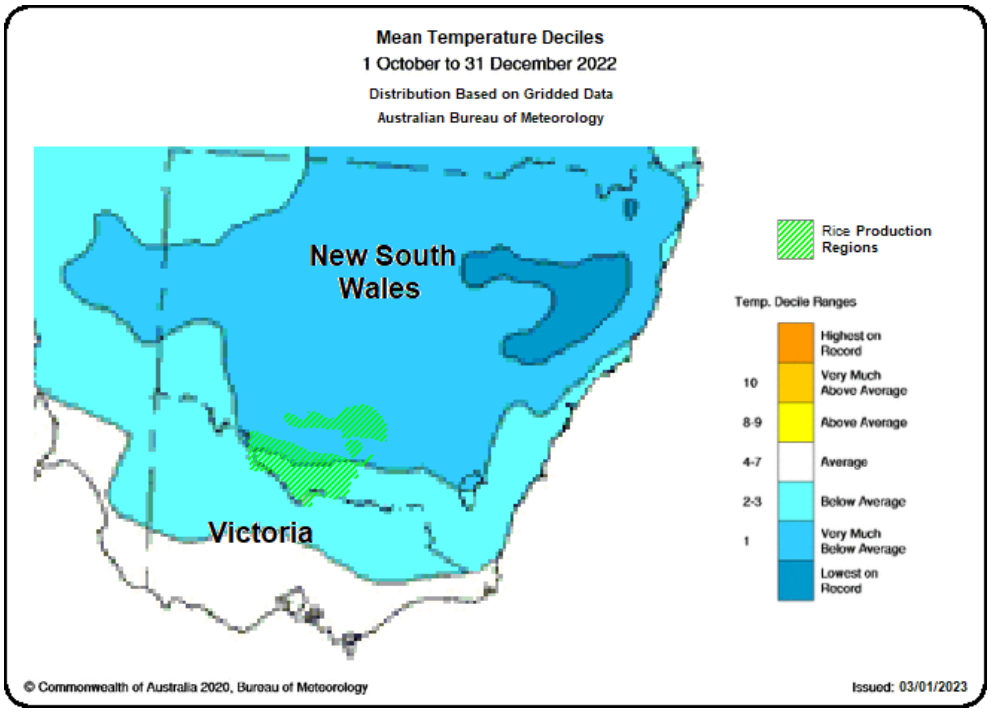


Source: Australian Bureau of Meteorology / FAS/Canberra

Above-average rains over 2020 and 2021 had resulted in strong inflows of water into the major water storage dams from which irrigation water is delivered to rice producing regions. As at the end of September 2022, water storages overall were at near capacity which would typically encourage a strong rice planting program. Water allocations announced by the Murrumbidgee and New South Wales Murray (NSW Murray) irrigation schemes at the start and middle of each month during the irrigation season have a large bearing on rice planting programs and at around planting there was full water allocation giving producers confidence that this would not be a limiting factor. There is so much water in the storage dams and river systems that environmental flow requirements are reported to have been met and the government is releasing environmental flow water on the temporary water trade market which will support already low-cost temporary trade water.

The mean temperature from the start of October to the end of December 2022 in the rice producing regions has been below to well-below average (see Figure 13). This delayed crop growth and panicle initiation but although later than desired, warmer weather from early January has supported crop development which is now catching up. A successful fertilization stage remained a risk for the current crop. If weather conditions are suitable to negotiate this phase successfully the forecast of average to above average median temperatures for January to March 2023 is expected to encourage good grain fill and achieve good rice yields.

Figure 13 – Mean Temperature Deciles – October to December 2022



Source: Australian Bureau of Meteorology / FAS/Canberra

FAS/Canberra's milled rice production estimate for MY 2021/22 is 500,000 MT, which is in line with the official USDA estimate and the Australian Bureau of Agriculture and Resource Economics and Sciences.

Consumption

Estimated rice consumption by FAS/Canberra in MY 2022/23 is 375,000 MT, merely 5,000 MT higher than the MY 2021/22 estimate and in line with the official USDA estimate. With the impacts of the COVID-19 pandemic having abated, surging inflation impacting consumers disposable income is anticipated to result in some consumers increasing their use of staples such as rice. With this, consumption is anticipated to be a little higher than the pre-drought five-year average (MY 2013/14 to MY 2017/18) of around 365,000 MT.

FAS/Canberra's rice consumption estimate for MY 2021/22 is 370,000 MT, which is also in line with the official USDA estimate.

Trade

Imports

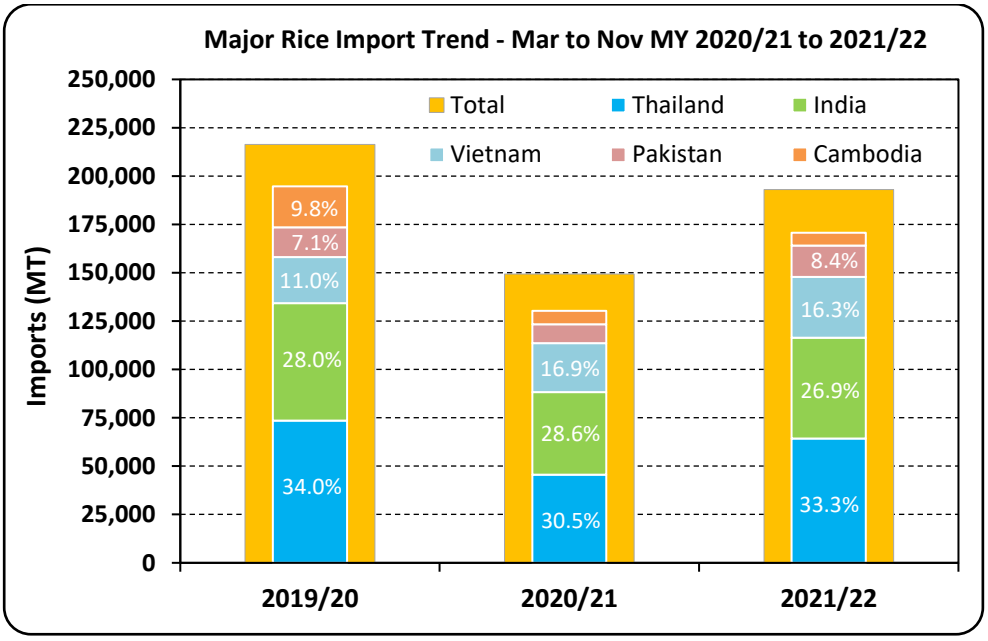
FAS/Canberra estimated imports of 250,000 MT in MY 2022/23, a 10,000-MT (four percent) decline from the MY 2021/22 estimate of 260,000 MT, which are both in line with the official USDA position. Earlier forecasts were for a much lower level of rice imports for MY 2022/23 but with planting being

hindered by abnormally wet conditions, much lower production is now expected, resulting in a substantial lift in estimated imports.

Imports for the March to November 2022 period are at 193,101 MT and after accounting for seasonality variances for the remaining three months, imports are on track to achieve the estimated 260,000 MT for MY 2021/22.

Traditionally, the major sources of rice imports by Australia have been from Thailand and India, accounting for almost two-thirds of overall imports. Combined with Vietnam, Cambodia, and Pakistan the top five sources of rice imports represent almost 90 percent of overall imports. However, there has been a small shift in the balance of sources of rice over the last two years with increases from Vietnam but substantial decreases from Cambodia (see Figure 14).

Figure 14 – Australian Rice Import Trends – March to November



Source: Australian Bureau of Statistics

Exports

FAS/Canberra's estimate for exports in MY 2022/23 of 225,000 MT is a 25,000 MT increase (13 percent) over MY 2021/22 estimate of 200,000 MT, which are both in line with the official USDA position. This increase is directly related to the flow on from the big increase in production in MY 2021/22 and the associated lag to mill and market the rice.

FAS/Canberra's rice export estimate for MY 2021/22 at 200,000 MT is in line with the official USDA estimate. Exports for the first nine months from March to November 2022 were 158,549 MT and with a

good volume available for milling from the MY 2021/22 crop, the pace of exports for the remaining three months of the marketing year is expected to be maintained.

Stocks

Rice stocks are estimated to decline somewhat in MY 2022/23 on the back of much lower-than-expected production than previously forecast prior to planting. However, stocks are expected to remain at typical (non-drought impacted) levels.

Rice, Milled	2020/2021		2021/2022		2022/2023	
Market Year Begins	Mar 2021		Mar 2022		Mar 2023	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	45	46	68	65	40	40
Beginning Stocks (1000 MT)	15	15	93	86	283	276
Milled Production (1000 MT)	305	305	500	500	288	288
Rough Production (1000 MT)	424	424	694	694	400	400
Milling Rate (.9999) (1000 MT)	7200	7200	7200	7200	7200	7200
MY Imports (1000 MT)	206	206	260	260	250	250
TY Imports (1000 MT)	204	204	260	255	250	250
TY Imp. from U.S. (1000 MT)	10	10	0	0	0	0
Total Supply (1000 MT)	526	526	853	846	821	814
MY Exports (1000 MT)	93	100	200	200	225	225
TY Exports (1000 MT)	72	72	200	200	225	225
Consumption and Residual (1000 MT)	340	340	370	370	375	375
Ending Stocks (1000 MT)	93	86	283	276	221	214
Total Distribution (1000 MT)	526	526	853	846	821	814
Yield (Rough) (MT/HA)	9.4222	9.2174	10.2059	10.6769	10	10

(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 2022/2023 = January 2023 - December 2023

Attachments:

No Attachments