Required Report: Required - Public Distribution **Date:** March 27, 2024

Report Number: AS2024-0006

Report Name: Cotton and Products Annual

Country: Australia

Post: Canberra

Report Category: Cotton and Products

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Report Highlights:

Cotton production in Australia is set for a fourth successive year of high production in marketing year (MY) 2024/25, forecast at 5.5 million bales, which would be the third largest crop. The prospect of average rainfalls over the winter/spring period if realized would establish improved irrigation water availability for growers. This, compared to dry conditions in southern Queensland and northern New South Wales in the lead-up to planting the MY 2023/24 crop, which adversely affected the planted area. Despite this challenge in Australia's biggest cotton producing region, the MY 2023/24 estimate is for a 5.0 million bale crop on the back of larger cotton crop planting in the more southern areas. Exports are forecast to reach 5.8 million bales in MY 2024/25, a drop of 200,000 bales from the MY 2023/24 estimate despite a higher crop forecast. This is due to the first nine months of trade in the forecast year being from the MY 2023/24 crop, the fourth highest following the MY 2022/23 record of 6.2 million bales.

EXECUTIVE SUMMARY

Cotton production in Australia is set for a fourth successive year of big production in marketing year (MY) 2024/25, forecast at 5.5 million bales. If realized, this would be the third largest, slightly below the record 5.85 million bales produced in MY 2021/22. This Australian Bureau of Meteorology is set to transition its El Niño (drier than usual) conditions to neutral in the current fall, indicating a likelihood of average rainfalls in the coming months. With good levels of water currently in irrigation storage dam schemes and the prospect of average rainfalls during the typical winter/spring recharge period for these schemes and on-farm irrigation storage dams, industry confidence exists that conditions should support another big cotton crop. Futures cotton prices relating to the forecast crop at this stage are firm at a little above the previous 10-year average, with key input costs moderating over the last two years. The market expects adequate economic incentives for growers to plant a big cotton crop for the forecast year.

The forecast planted area is expected to increase by five percent to 600,000 hectares from an estimated 570,000 hectares in MY 2023/24, associated with an increase in irrigated cotton area. This is after a lower-than-expected planting for the current season in southern Queensland and northern New South Wales, caused by dry conditions that limited water harvesting in the lead-up to planting, which started in October 2023. The overall cotton yield in the forecast year is also anticipated to improve slightly, in part due to the forecast increase in irrigated cotton but more so due to planting in southern Queensland and northern New South Wales being delayed somewhat due to the dry conditions in the lead up to the normal start of planting in October.

Exports are forecast to fall by three percent to 5.8 million bales in MY 2024/25 but still achieve the fourth-highest result from the record of 6.2 million bales for MY 2022/23. Despite the forecast increased cotton production for MY 2024/25 to 5.5 million bales, a drop in exports is forecast due to the first nine months of the marketing year being heavily influenced by the lower production estimate of 5.0 million bales from MY 2023/24.

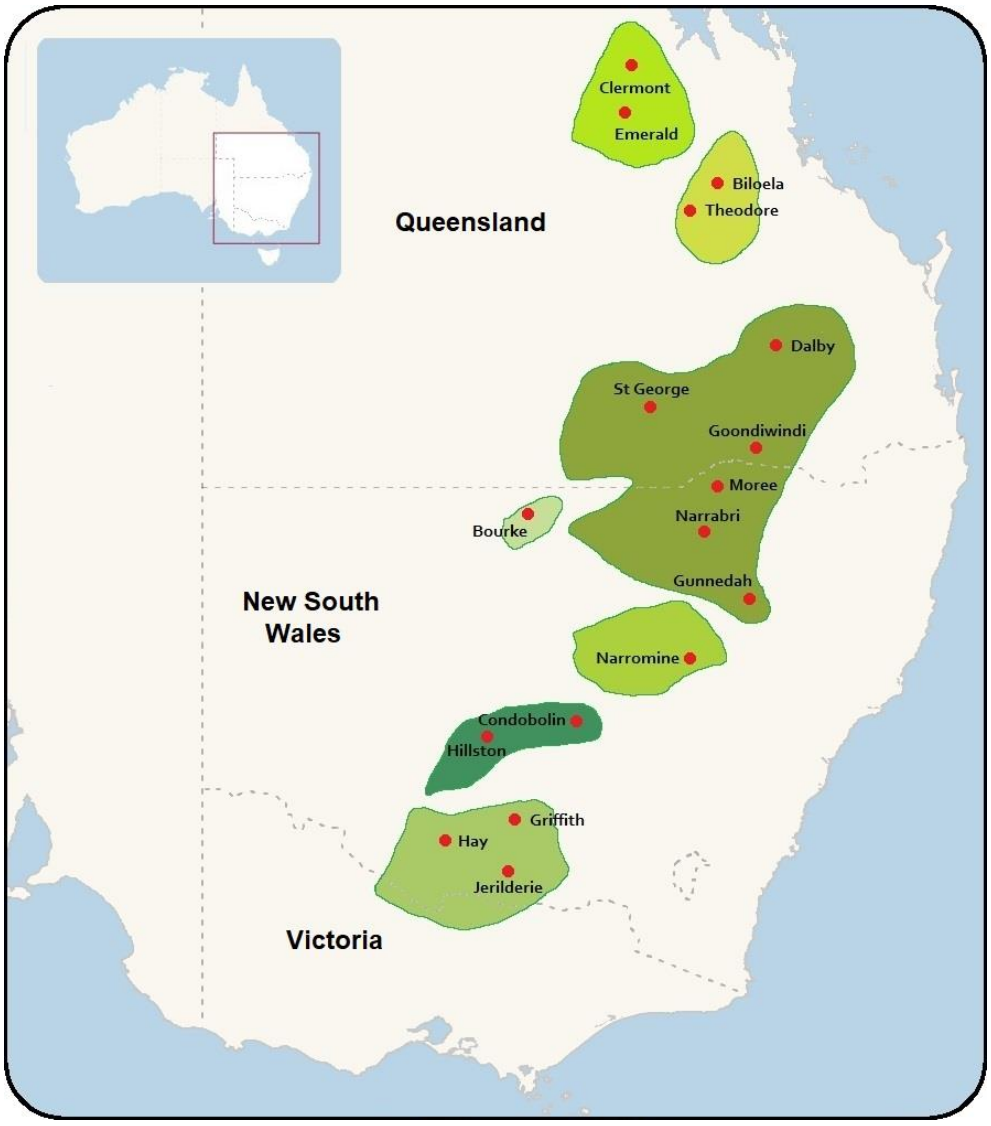
COTTON

Overview of Cotton Production

Australia is a major producer and exporter of cotton, typically representing 10 to 20 percent of world exports. There are up to 1,500 cotton farmers in Australia of which 90 percent are family farms, producing 80 percent of the total crop. Cotton in Australia is primarily grown in New South Wales and Queensland. In a typical year, New South Wales produces around two-thirds of the national production and one-third of the Queensland production. The main growing areas in Queensland are in the central and southern parts of the state. Within New South Wales, the majority of the cotton is grown in north and central areas, although the southern areas are increasing in importance. The map in Figure 1 below shows the cotton growing areas in Australia.

With improvements in cotton varieties suitable for differing growing conditions, farmers have expanded cotton areas in southern New South Wales and northern Victoria. Cotton growing is also in its early stages of development in far north Queensland, Northern Territory, and Western Australia in the Ord River Irrigation Scheme. These areas offer substantial scope for expansion. Growers initially transported their cotton to southern Queensland for ginning, some 3,400 kilometers (2,070 miles) from the Western Australian production area. In January 2024, a new cotton ginning facility in the Northern Territory near Katherine commenced operations. A new cotton gin in Western Australia's Kununurra area is planned for construction to service the growing potential in the Ord River Irrigation Scheme area and nearby areas. These cotton gin developments could trigger significant growth in cotton production in this region.

Figure 1 - Map of Cotton Growing Areas in Australia



Source: Cotton Australia / FAS/Canberra

Cotton is a summer crop, and in the major growing regions in Australia, soil preparation typically occurs between July and September to prepare for planting in October/November and as late as December. Picking typically occurs from March to June. The further north the growing area (such as central Queensland), the earlier the season can start with a wider growing window due to the warmer climate. Some growers take on successfully trialed planting as early as August, and some extend their production to a top crop (second set of bolls) to produce higher yields. In these regions, picking can be as early as January and finish as late as July. In the far northern regions of Queensland, Northern Territory, and Western Australia - where the industry is in its infancy - planting is typically in November/December, prior to the onset of the tropical wet season. In these regions, harvesting is typically in June/July. Growers in these regions have yet to invest in cotton-picking equipment and rely on contractors to travel from the southern regions after their season ends.

In a typical season, approximately 85 to 90 percent of cotton production is irrigated, and 10 to 15 percent is dryland. However, cotton classified as having been produced by irrigation includes crops that may have received only one irrigation for the season. Over the last two decades, the Australian cotton industry has improved water efficiency by advancing cotton varieties, irrigation techniques, soil moisture monitoring, and whole-farm irrigation planning to recycle runoff water.

The dependence on irrigation water decreases further north towards central Queensland due to the most northern areas being subject to tropical wet season rainfall, primarily between January and March (typically in the mid to late growing period). These regions have a greater proportion of their water requirements met by in-crop rainfall than regions further south, particularly in New South Wales. Similarly, in Far North Queensland, Northern Territory, and the adjacent Ord River region in Western Australia, production is mainly based on in-crop rainfall. However, there is an opportunity for some irrigated cotton crops, particularly in the Ord River area. The major growing regions in central and southern Queensland and New South Wales depend highly on irrigation water availability. Irrigation water is derived from a combination of sources, including:

1) Water is harvested and stored in on-farm dams from overland flow. This can occur after high rainfall events typical in the more northern cotton production regions.
2) Water is harvested and stored from waterways during high-flow periods and after high rainfall events. This is most prominent across southern Queensland and the northern and central cotton production regions of New South Wales.
3) Underground water is also a source of irrigation water although it is relatively small compared to the combination of other sources. However, it is a reliable source, and in drought years with little water from other sources, it can become very important.
4) Irrigation schemes based on large storage dams. There are multiple systems across Queensland and New South Wales cotton-producing areas and in a typical year form the largest part of a range of irrigation water sources for cotton production. The southern cotton production region is almost entirely dependent upon this source, whereas the central region and most northern regions have a high dependence on this source.

The main irrigation schemes in New South Wales cotton growing regions from north to south are:

- Border Rivers
- Gwyder Valley
- Namoi Valley
- Macquarie
- Lachlan Valley
- Murrumbidgee

The locations of the irrigation schemes for cotton are shown in Figure 2 below. These irrigation schemes are part of a wider group of irrigation schemes and are overseen by the Murray Darling Basin Authority.

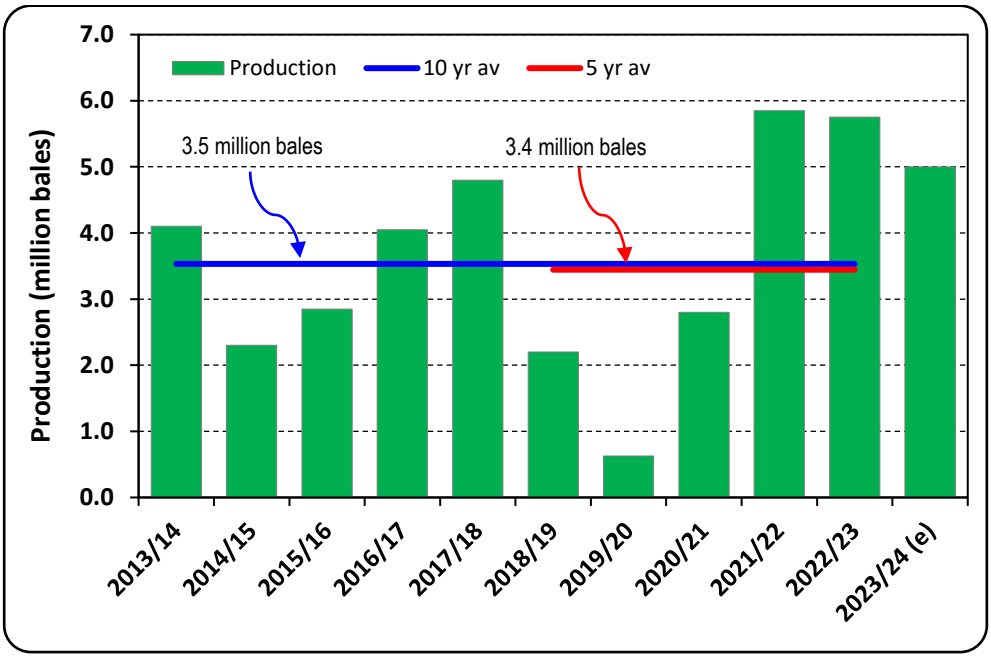
Figure 2 – Major NSW Cotton Growing Irrigation Catchment Map

Source: *Murray Darling Basin Authority*

Australian cotton production is extremely volatile from year to year (see Figure 3) as it is primarily driven by irrigation water availability.

Bt cotton was introduced into Australia in 1996, and it is estimated that 99 percent of cotton grown now has some form of genetic modification trait. Bolgard 3 and Roundup Ready varieties are now grown in Australia. Meanwhile, integrated pest management techniques have reduced pesticide use, which the industry estimates to have been down as much as 95 percent since 1993.

Figure 3 – Australian Cotton Production



Source: Australian Bureau of Statistics / FAS/Canberra

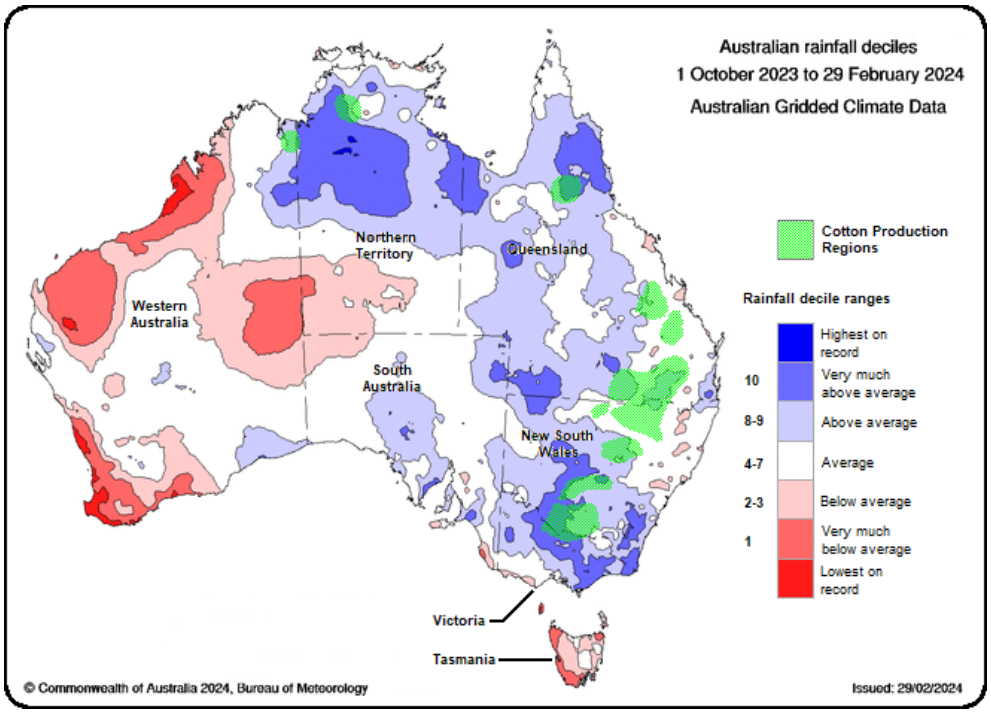
Production

FAS/Canberra forecasts a fourth successive season of strong cotton production in MY 2024/25 of 5.5 million bales, from an estimate of 5.0 million bales for MY 2023/24. If realized, the forecast production would be the third-highest result on record, with a peak of 5.85 million bales set in 2021/22. The forecast rise in production is based on the anticipation of a return to normal winter/spring seasonal conditions, enabling a greater capture of the overland flow of water for irrigation, a strong likelihood of ample water availability from irrigation schemes, and the market indicating adequate pricing for the forecast year, encouraging a strong production season.

The 10-percent increase in forecast production for MY 2024/25 is primarily due to an anticipated increase in the planted area of cotton, particularly in southern Queensland and northern New South Wales, but also some yield improvement. The planted area is expected to increase 600,000 hectares in the forecast year from 570,000 hectares in the MY 2023/24 estimate year.

The Australian Bureau of Meteorology (BOM) is reporting that the current El Niño (dryer than usual conditions) is weakening, and conditions will return to neutral later in the fall (NB fall in Australia is from March to May). Conditions in the eastern states, where most of the cotton is produced, were drier than usual from March to September 2023. The BOM declared an El Niño on September 19, 2023. Since that time (October 2023 to February 2024) the eastern states have had average to above average rainfall, far from typical El Niño outcomes (see Figure 4), and the BOM is yet to declare the end of El Niño.

Figure 4 – Rainfall Deciles, Oct 2023 to Feb 2024

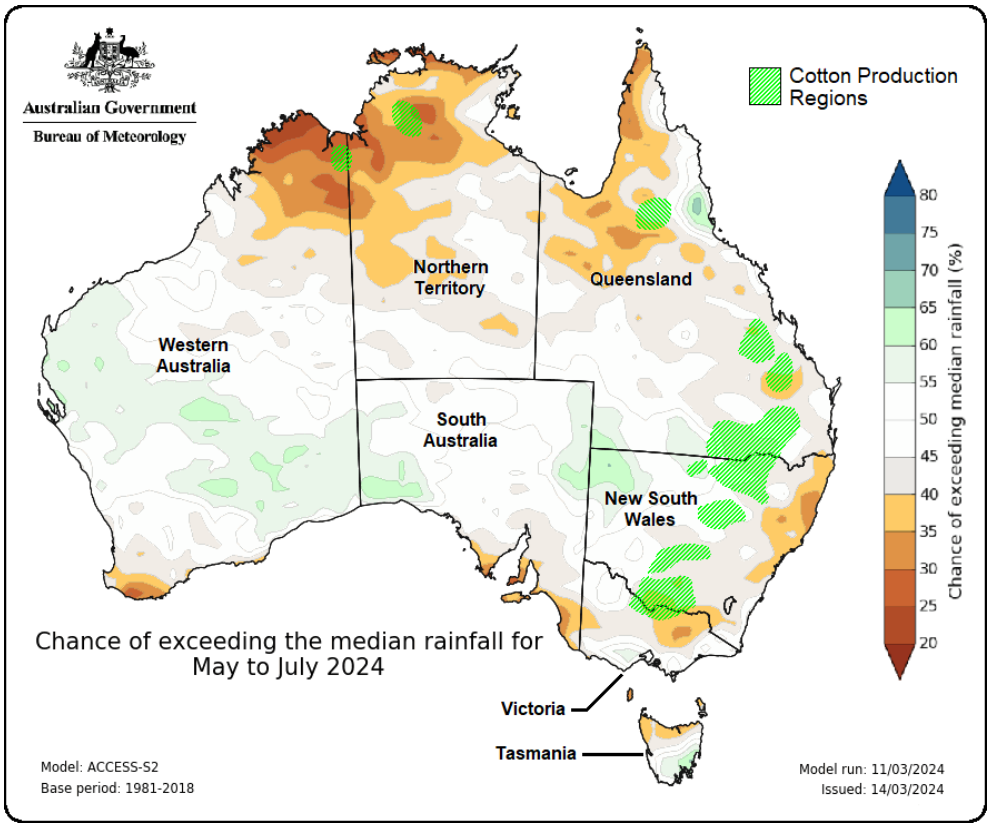


Source: Australian Bureau of Meteorology / Cotton Australia

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.

The BOM forecast for May to July 2024 broadly shows the average chance of median rainfall in the eastern states where most of Australia's cotton is produced (see Figure 5). The return to average rainfall expectations in the coming months, in the lead-up to the forecast year planting period starting in October 2024, is particularly important for growers in southern Queensland and northern New South Wales who rely on overland flow and or rivers in high flow, to enable extraction of water into on-farm storage dams.

Figure 5 – Australian Rainfall Forecast – May to Jul 2024



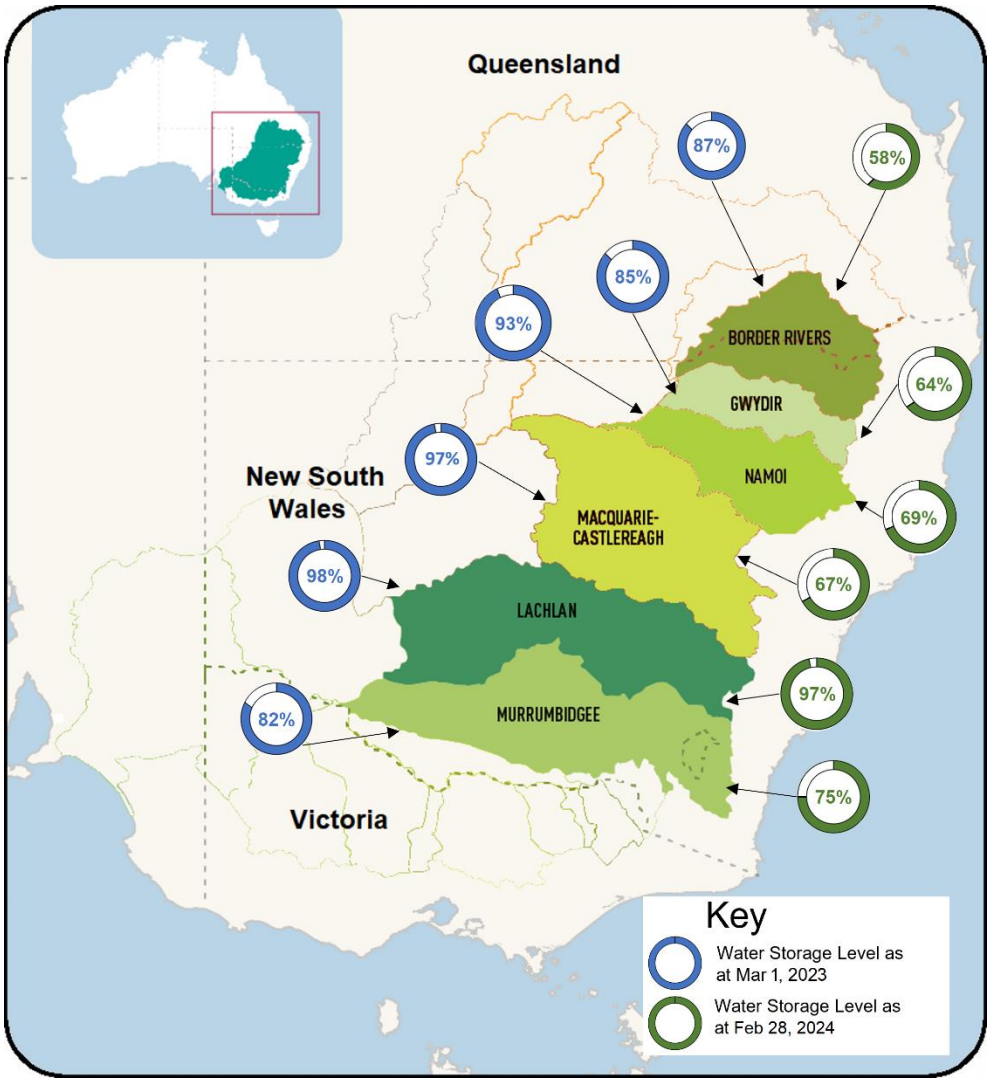
Source: Australian Bureau of Meteorology / Cotton Australia

A further important factor supporting the forecast increase in irrigated cotton planting for MY 2024/25 is that the levels of water stored in dams associated with irrigation schemes at the tail end of the current MY 2023/24 irrigation season is broadly good to very good across the major cotton producing regions (see Figure 6). The levels reflect better-than-usual expectations towards the end of an irrigation season. They are typically replenished from winter and spring rains to higher levels leading up to the planting of the subsequent summer crop season. The current levels of water storage, coupled with the expectation from the BOM of average rainfalls in the coming months, or potentially above average rainfalls by some non-government meteorologists, provide confidence that there will be adequate water availability for cotton growers in MY 2024/25. It is important to note that although storage dam levels are currently well below that at the same time as the previous year, this is more due to earlier successive years of above-average rainfall, particularly a very wet spring in 2022, which caused multiple flooding events.

The forecast of a slight improvement in overall cotton yield in MY 2024/25 compared to the MY 2023/24 estimate is mainly due to a small dip in the average yield expected for MY 2023/24. This is because of the dry conditions in southern Queensland and northern New South Wales experienced in the lead-up to planting, which reduced on-farm stored water availability and, subsequently, the planted area in that region. There is also the expectation that the yields of the current dryland crop in that region will be down somewhat due to later-than-usual planting after rains started to fall in October 2023, and bursts

of hot conditions during the finishing period affecting crop development. A return to normal seasonal conditions with timely planting and an increase in irrigated cotton area is anticipated to result in a slight lift in the national average yield of cotton for the forecast crop.

Figure 6 – Irrigation Storage Levels - March 1, 2023 and February 28, 2024



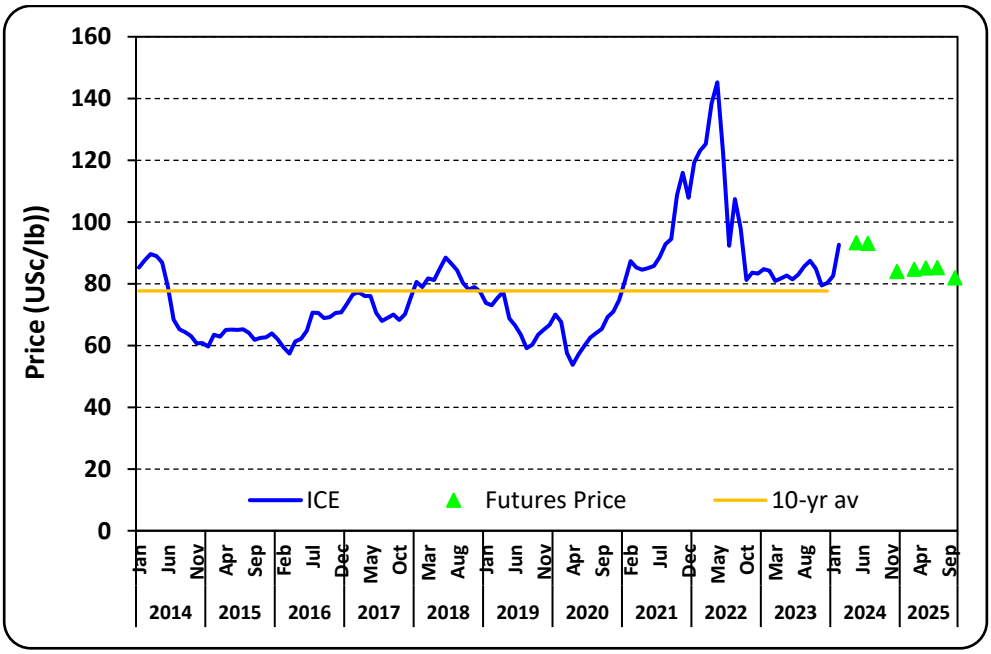
Source: Murray Darling Basin Authority

As Australia exports virtually all of the cotton it produces, the price growers receive is directly linked to world prices. Current cotton prices from the world market price indicator ICE (Intercontinental Exchange) #2, just prior to the MY 2023/24 cotton pick in Australia, are a little above the previous 10-year average but well below the highs during MY 2021/22 (see Figure 7). Futures cotton prices for the lead-up period to planting the forecast crop, and for the remainder of the MY 2024/25 are similar to prices for MY 2023/24 at around US85c per pound and above the previous 10-year average of US78c per pound.

A further factor impacting Australian cotton export competitiveness is that the Australian dollar has been relatively weak, at around AU$1.51 to one U.S. dollar. Some Australian economists anticipate that the Australian currency will strengthen toward the end of 2024 to around AU$1.40 to one U.S. dollar. If the economists' predictions are realized this would weaken the competitiveness of Australian cotton exports for the forecast year.

The futures cotton price in the lead-up to planting the MY 2024/25 crop and beyond, including a strengthened Australian currency towards the end of 2024, in line with economists' predictions, would lead to a price of around AU$595 per bale (NB Australian bale weight is 227 kg compared with U.S. bale size of 217.7 kg) for Australian cotton growers. Coupled with key input costs such as fertilizer, herbicides and pesticides, and fuel, which have moderated over the last two years back down towards past levels, and economist predictions of Reserve Bank rate cuts in the second half of 2024 (reducing farm loan interest costs), there are encouraging signs for an increased cotton planted area for the forecast year.

Figure 7 – ICE #2 Cotton Price History & Futures



Source: *Intercontinental Exchange (ICE) #2 – historical prices* www.investing.com/commodities/us-cotton-no.2-contracts - futures prices

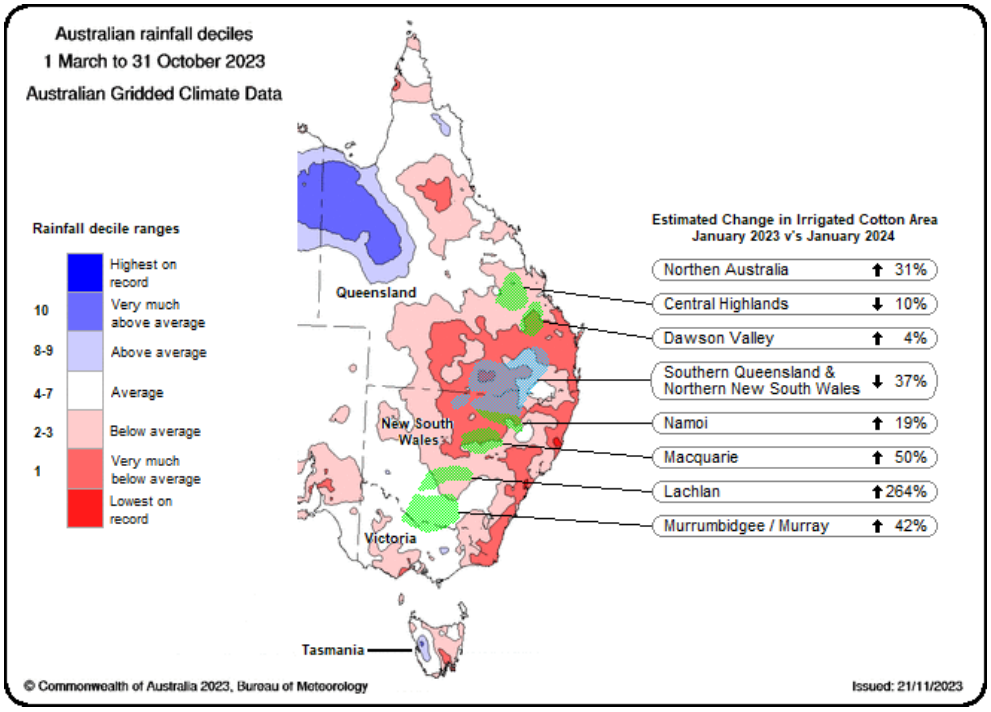
FAS/Canberra's cotton production estimate for MY 2023/24, with harvest just about to commence in April 2023, is downward revised to 5.0 million bales from its forecast twelve months earlier of a near-record 5.8 million bales. The current forecast is 200,000 bales above the current USDA official estimate of 4.8 million bales. The downward revision is mainly due to the very dry conditions experienced in the months preceding planting in the major cotton-producing regions of southern Queensland and northern

New South Wales. The FAS/Canberra production estimate is above the official USDA estimate mainly because the planted area, based on Cotton Australia data as of January 10, 2024, is well above the official USDA estimate.

Some farmers in southern Queensland and northern New South Wales have access to irrigation water schemes. Still, many depend on the overland flow of water and entitlements from high river flow from which water is pumped and stored into on-farm dams. This region, which typically accounts for around 60 percent of the national irrigated cotton crop, had far below-average rainfall in the months before the MY 2023/24 planting period (see Figure 8), which typically starts in October. This resulted in an estimated 37 percent fall in irrigated cotton planted area from the previous year, which produced a near-record crop. This was partially offset by the cotton-producing areas to the south, which mainly source their water from irrigation water schemes, substantially increased their planted area in MY 2023/24.

Irrigation schemes across all cotton-producing regions broadly had high levels of water storage in the lead-up to planting from above-average rainfalls in previous seasons. For cotton-producing regions where access to water was mainly from irrigation schemes, ample water was available and the planted area for MY 2023/24 was high. For the more southern regions, the planting period for MY 2022/23 was hampered by abnormally wet conditions, which limited growers' ability to plant a full crop program. So, the growth in planted area for MY 2023/24 in the more southern regions was not due to a lack of irrigation water availability in MY 2022/23 but rather improved planting conditions in MY 2023/24.

Figure 8 – Rainfall Deciles, Mar-Oct 2023 and Change in Estimated Irrigated Cotton Areas between January 2023 and January 2024



Source: Australian Bureau of Meteorology / Cotton Australia

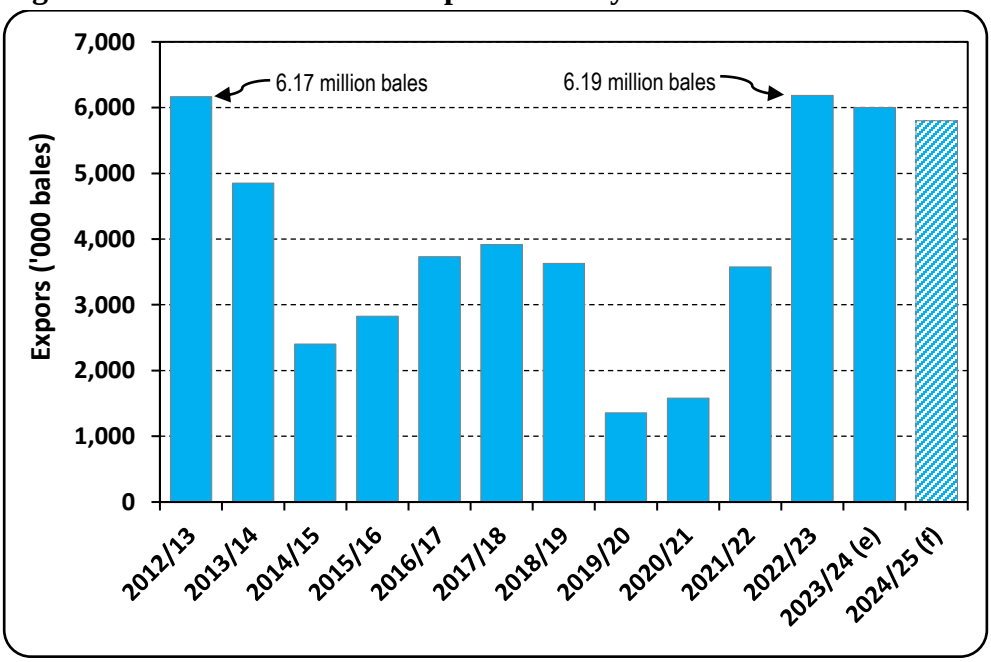
Consumption

Manufacturing in Australia is uncompetitive due to the high cost of labor relative to the major cotton processing countries such as China, Vietnam, Indonesia, and Bangladesh. This situation is not anticipated to change, and domestic consumption is forecast to remain at very low levels.

Trade

FAS/Canberra forecasts cotton exports to decrease by 3.3 percent to 5.8 million bales in MY 2024/25 from an estimate of 6.0 million bales in MY 2023/24. This would still be the fourth-largest export year on record and the third successive year of big export volumes (see Figure 9). Despite an increase in cotton production anticipated for the forecast year, lower production from the current year and the seasonality of exports will negatively impact overall exports in the forecast year.

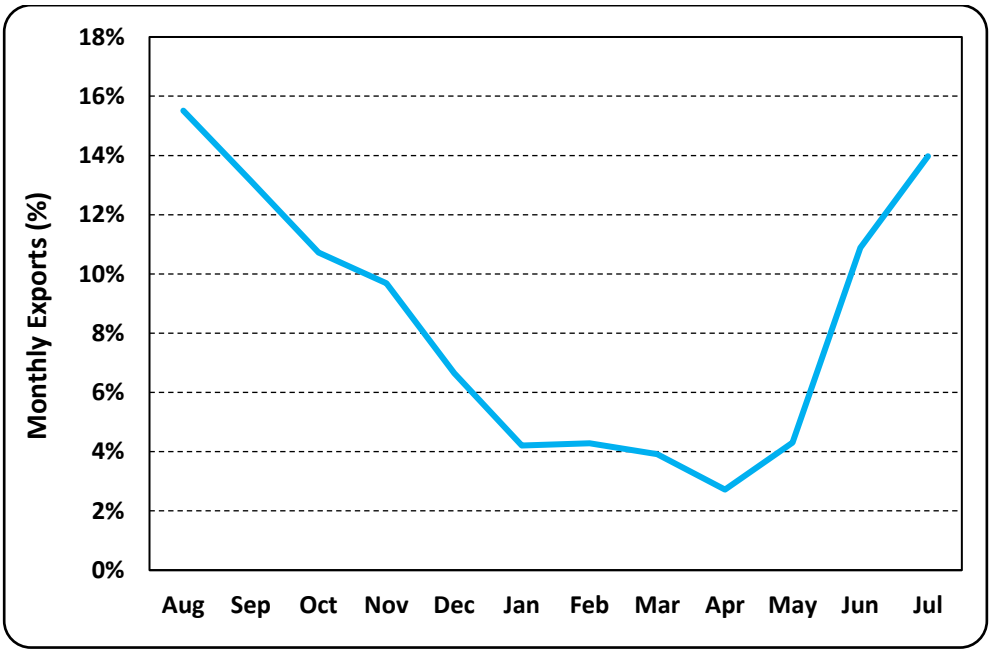
Figure 9 – Australian Cotton Exports History



Source: Australian Bureau of Statistics / FAS/Canberra

An important aspect of forecasting exports is understanding the seasonality of trade in conjunction with the timing of cotton picking and ginning, particularly when there is significant variation in production from one year to the next. For Australia, cotton picking and ginning is mainly from April to June, at the tail end of the August to July marketing year. So, production from one marketing year primarily influences exports during the last three months (May to July) of that marketing year (see Figure 10). Exports from the preceding nine months (August to April) are from the crop harvested in the previous marketing year. With lower production in MY 2023/24 relative to the previous near-record year flowing into exports for around the first nine months of MY 2024/25, shipments for the forecast year are anticipated to decline.

Figure 10 – Australian Cotton Export Seasonality – 5-year average

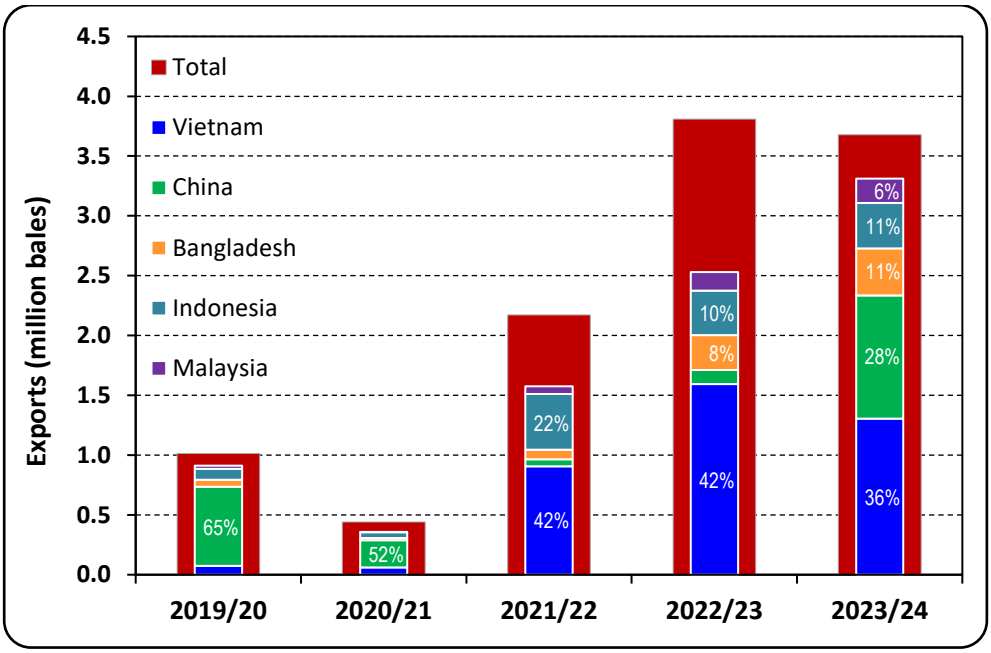


Source: *Australian Bureau of Statistics*

In the recent past, China has been the primary destination for Australian cotton exports, with Vietnam and Indonesia also being important destinations. Trade tensions between China and Australia dramatically impacted the volume of cotton trade between these nations. However, in the marketing year to date for 2023/24 (August 2023 to January 2024) there has been a major return to trade with China (see Figure 11). Over the last two years, trade with Bangladesh and Malaysia has also become significant at around 11 and six percent, respectively. For the current MY 2023/24 to date, the top five cotton export destinations have accounted for 90 percent of overall exports, a substantial increase from the previous two years. Exports to Thailand, Turkey, and India temporarily rose in MY 2021/22 and 2022/23 before falling in the current MY 2023/24. Overall cotton imports for these three nations so far in MY 2023/24 have dropped considerably compared to the same period in the previous year.

In typical years, Australia is the fourth largest exporter of cotton at around 10 to 13 percent of the world's exports behind the United States, Brazil, and India. With extensive export programs since MY 2022/23 so far and another big production year expected in April 2024, Australia has surpassed India to become the third largest cotton exporter at around 20 percent of overall world exports.

Figure 11 – Australian Cotton Exports – Aug to Jan MY 2019/20 to MY 2023/24



Source: *Australian Bureau of Statistics*

The MY 2023/24 cotton export estimate has been revised upwards by FAS/Canberra to 6.0 million bales, 250,000 bales above the official USDA estimate. For the first six months of MY 2022/23 (August 2023 to January 2024), exports are at 3.7 million bales, and taking into consideration export seasonality and another big but reduced crop size to be picked from April 2024 that will influence the last three months of the marketing year, a further 2.3 million bales of shipments for the final six months of the marketing year is well within reach.

Stocks

With two successive big cotton shipments expected in the estimate and forecast years, ending stocks are forecast to remain high but decline somewhat in MY 2024/25, and the level is not unexpected due to the anticipation of a smaller crop in MY 2023/24, which will reduce the export supply in the first nine months of the forecast year.

Table 1 - Production, Supply, and Distribution of Cotton

Cotton	2022/2023		2023/2024		2024/2025	
Market Year Begins	Aug 2022		Aug 2023		Aug 2024	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested (1000 HA)	650	650	515	570	0	600
Beginning Stocks 1000 480 lb. Bales	4960	4960	4772	4704	0	3894
Production 1000 480 lb. Bales	5800	5750	4800	5000	0	5500
Imports 1000 480 lb. Bales	0	0	0	0	0	0
Total Supply 1000 480 lb. Bales	10760	10710	9572	9704	0	9394
Exports 1000 480 lb. Bales	6168	6186	5750	6000	0	5800
Domestic Use 1000 480 lb. Bales	10	10	10	10	0	10
Loss 1000 480 lb. Bales	-190	-190	-200	-200	0	-200
Domestic Use and Loss 1000 480 lb. Bales	-180	-180	-190	-190	0	-190
Ending Stocks 1000 480 lb. Bales	4772	4704	4012	3894	0	3784
Total Distribution 1000 480 lb. Bales	10760	10710	9572	9704	0	9394
Stock to Use % (PERCENT)	77.24	75.92	69.65	64.79	0	65.13
Yield (KG/HA)	1943	1926	2029	1910	0	1996
(1000 HA) ,1000 480 lb. Bales ,(PERCENT) ,(KG/HA)						

Attachments:

No Attachments