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Report Highlights:

Australia's cotton production is forecast to partially recover in 2020/21 and rise to 1.7 million bales, from a revised estimate of 625,000 bales in 2019/20. If realized, this forecast would still be the second smallest cotton crop in Australia in a decade. Multi-year drought in key cotton areas has sharply reduced irrigation water availability, but plentiful rains in early 2020 have improved prospects for some expansion in planted area. 2020/21 exports are forecast to fall to the lowest level in three decades to only 1.1 million bales, from a revised estimate of 1.5 million bales in 2019/20. This is due to extremely reduced beginning stocks limiting exports during much of the marketing year.

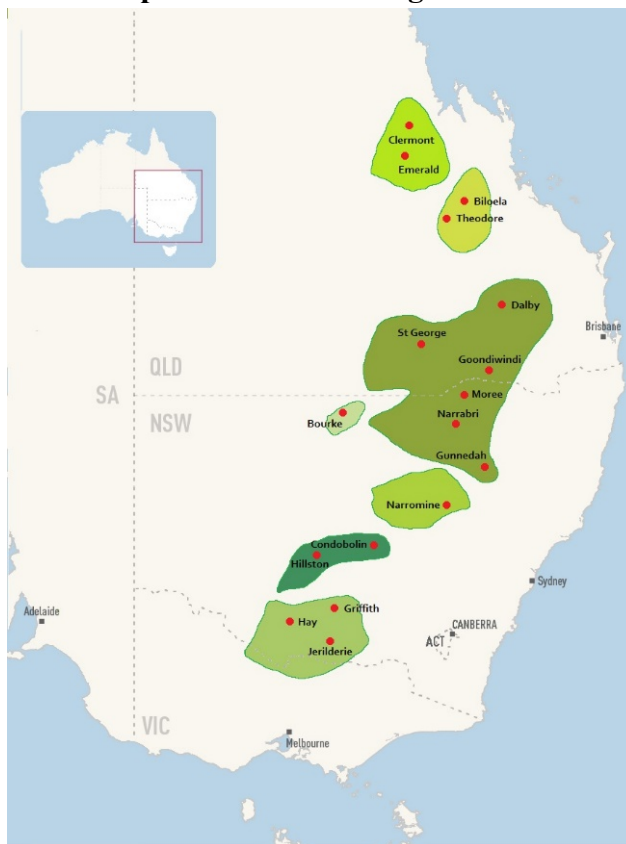
Executive Summary

Australia's cotton production is forecast to partially recover in 2020/21 and rise to 1.7 million bales, up from a revised estimate of only 625,000 bales in 2019/20. If realized, this forecast would still be the second smallest cotton crop in Australia in a decade. Multi-year drought in key cotton areas has sharply reduced irrigation water availability, but plentiful rains in early 2020 have improved prospects for some expansion in planted area. 2020/21 exports are forecast to fall to the lowest level in three decades to only 1.1 million bales, from a revised estimate of 1.5 million bales in 2019/20. This is due to extremely reduced beginning stocks limiting exports during much of the marketing year.

Overview of Cotton Production and Long-Term Trends

Australia is a major producer and exporter of cotton. There are up to 1,500 cotton farmers in Australia of which 90 percent of producers are family farms, producing 80 percent of the total crop. Cotton in Australia is primarily grown in the states of Queensland (QLD) and New South Wales (NSW). NSW produces approximately 60 percent of the national production and QLD the remaining 40 percent. The main QLD growing areas are in the central and southern parts of the state. Within NSW, the majority of the cotton is grown in north and central areas. The map in Figure 1 below shows the cotton growing areas in Australia.

Figure 1 - Map of Cotton Growing Areas in Australia.



Source: Cotton Australia and FAS/Canberra

With improvements in cotton varieties suitable for differing growing conditions there has been some expansion of cotton areas in southern NSW and northern Victoria. Cotton growing trials are also in place in northern QLD and Northern Territory and also in Western Australia in the Ord River Irrigation Scheme. These areas offer substantial scope for expansion if they are determined to be a suitable for growing cotton.

Cotton is a summer crop and in the major growing regions in Australia soil preparation typically occurs between July and September in readiness for planting in October and November. Picking typically occurs from March to June. The further north the growing area (such as central QLD), the earlier the season can start with a wider growing window due to the warmer climate. In these regions picking can be as early as January and as late as July.

In a typical season approximately 90 percent of cotton production is irrigated, and 10 percent is dryland. Over the last two decades, the Australian cotton industry has improved water efficiency with the advancement of cotton varieties, irrigation techniques, soil moisture monitoring and whole farm irrigation planning to recycle run off water.

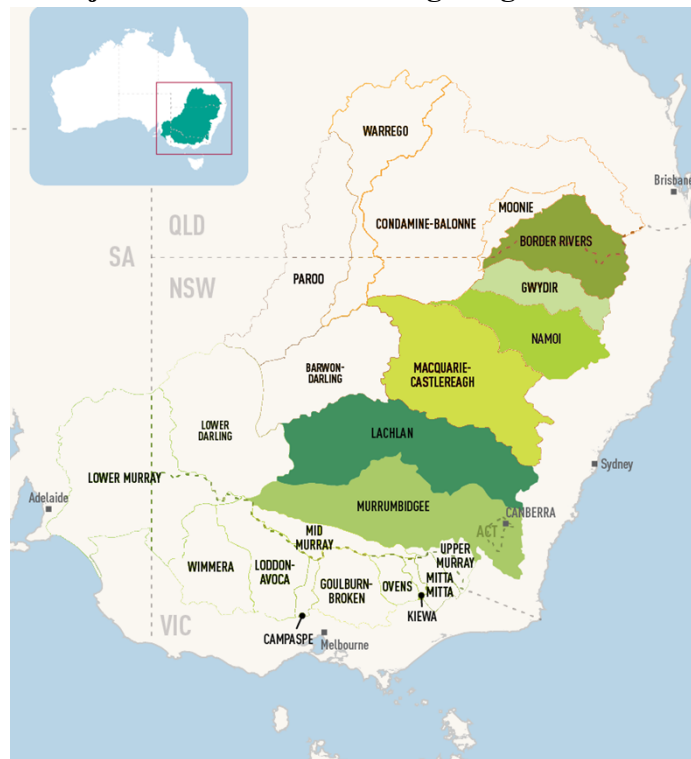
The dependence on irrigation water decreases the further north towards central QLD due to the northernmost areas being subject to tropical wet season rainfall primarily between January and March (typically in the mid to late growing period). These regions have a greater proportion of their water requirements met by in-crop rainfall than regions further south, particularly in NSW. The major growing regions in NSW are highly dependent upon irrigation water availability of which some is sourced from overland flow and pumping from rivers during high flow periods into on farm storage dams. There is also a relatively small proportion sourced from ground water pumping. The majority of irrigation water is sourced from irrigation schemes with their own water storage dams.

The main irrigation schemes in NSW 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.

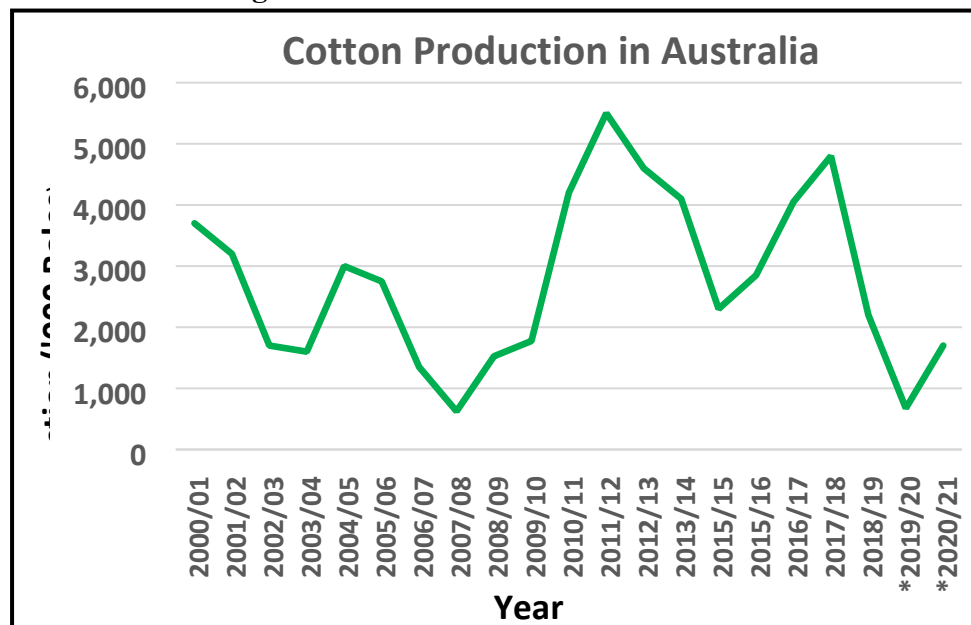
Figure 2 – Major NSW Cotton Growing Irrigation Catchment Map



Source: Murray Darling Basin Authority

Australian cotton production has extreme volatility from year to year as it is primarily driven by irrigation water availability (see figure 3 below).

Figure 3 - Cotton Production Variations



Source: PS&D Data, *FAS/Canberra estimates and forecasts

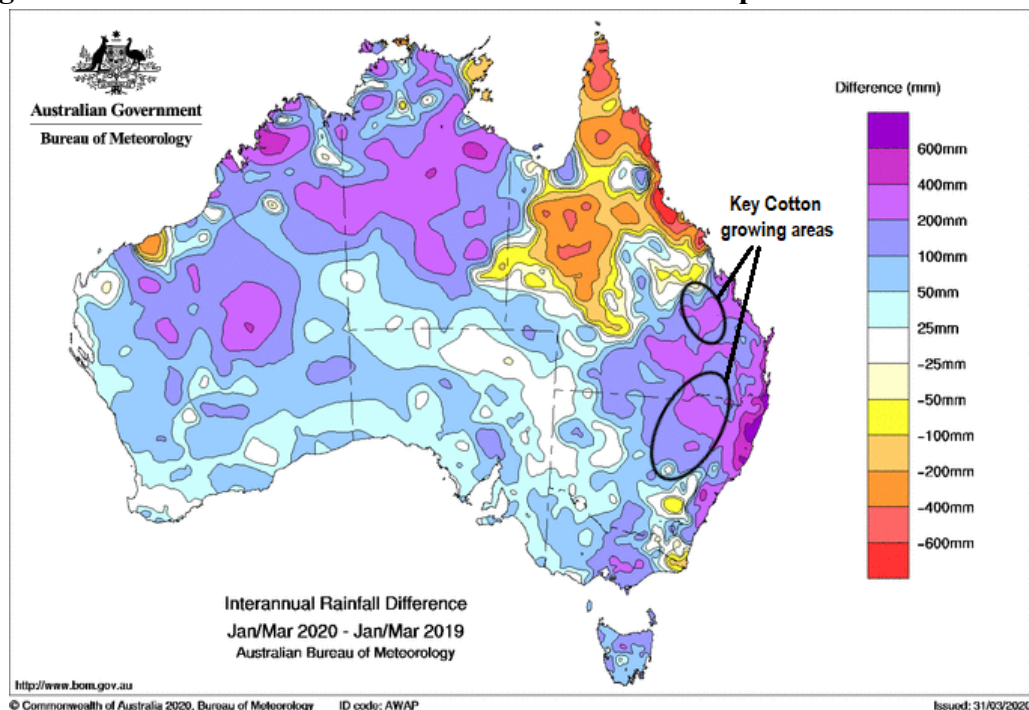
Bt cotton was introduced into Australia in 1996 and it is estimated that now 99 percent of cotton grown has some form of genetic modification trait. Bolgard 3 and Roundup Ready varieties are now grown in Australia and, combined with integrated pest management techniques, there have been major reductions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

2020/21 Production

The 2020/21 forecast is for a recovery in cotton production to 1.7 million bales, from a revised estimate of 625,000 bales in 2019/20. If realized this forecast would still be the second smallest crop in a decade. The driver of higher production is anticipated expanded area, which is forecast at 180,000 hectares, triple the level of 2019/20. This area figure, however, would still be only 42 percent of the 10-year average.

A key reason for higher 2020/21 planting area is above-average rainfalls in the drought affected cotton-growing States of NSW and QLD in early 2020, in part influenced by tropical wet season rains. This rainfall has markedly improved soil moisture content and caused water runoff into rivers and catchments to commence, particularly in central and southern QLD. Figure 4 below highlights the major improvement in rainfall for the January to March period 2020 relative to the prior year from central QLD through to the northern NSW. (Note: The map below indicates that in the northern QLD region there was much lower rainfall in 2020 compared to the same period in 2019. However, this region received exceptionally high rainfall in 2019 causing damaging flooding. Generally, rainfall in Australia in January to March 2020 is at or well above the same period in 2019.)

Figure 4 – Australia Interannual Rainfall Difference Map - Jan-Mar 2020 v 2019



Source: Bureau of Meteorology

Although there were plentiful rains in early 2020, water storage levels are still low, limiting expectations for even more expansion in area. The current water storage levels as at March 31, 2020 in the key cotton growing regions of NSW are summarised as follows;

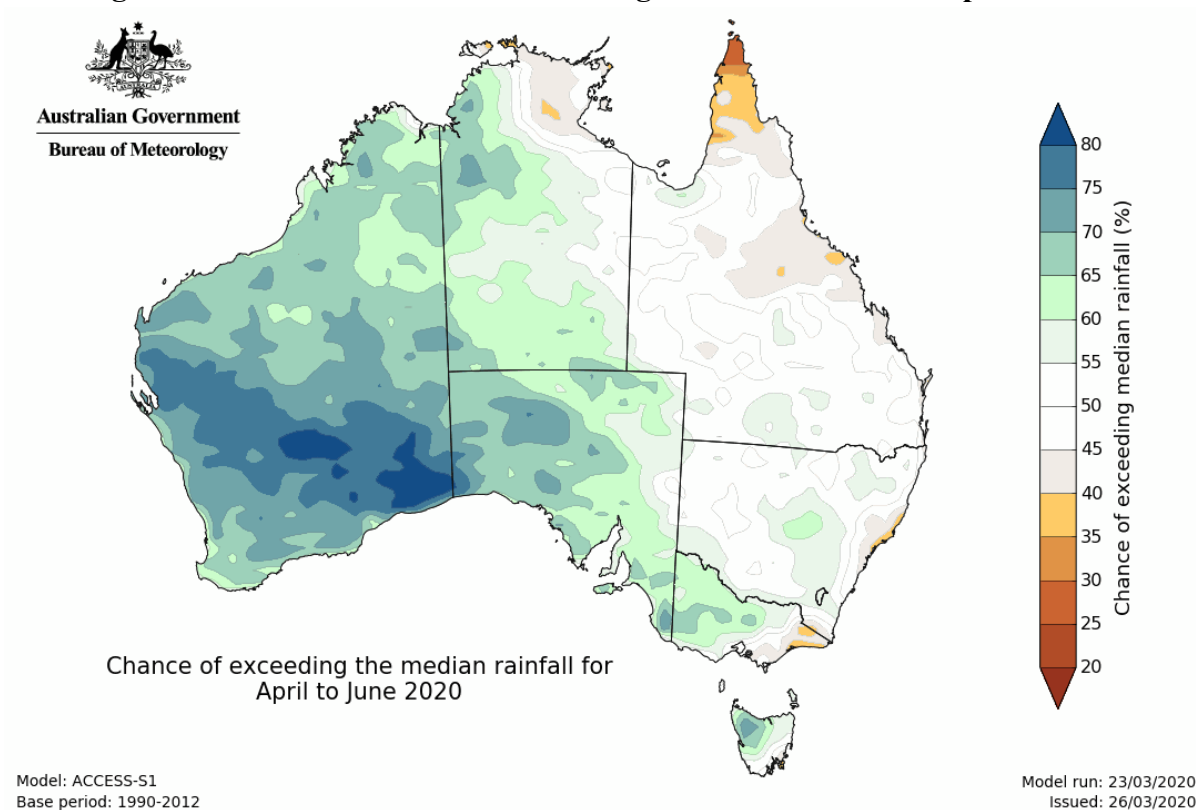
Irrigation Catchment	Capacity (GL)	Stoage Level March 18 2020	Pre Drought March 2017
Border Rivers	635	14%	72%
Gwyder Valley	1,364	12%	45%
Namoi Valley	923	10%	43%
Macquarie	2,046	10%	79%
Lachlan Valley	1,253	13%	88%
Murrumbidgee	2,659	13%	73%

Source: Murray Darling Basin Authority

As shown, water catchment levels in NSW remain very low compared to pre-drought levels (March 2017). These catchments are primarily dependent on rainfall during the winter and spring months. Decision making in terms of cotton planting areas occurs once there is a degree of certainty in terms of irrigation water availability after winter/spring rainfalls influence water catchment levels. Substantial inflows are required to meet High Security water rights (for example for town water supplies) prior to General Security water being made available for irrigators.

The Australian Bureau of Meteorology three-month forecast shown in Figure 5 generally indicates an average chance of receiving median rainfall for the April to June period. July to September is generally a period of higher rainfall in the key cotton growing catchments of NSW and is therefore the most important period for irrigation catchments. At this point in time there is a low degree of certainty of water inflows into the catchments and this is the reason the 2020/21 cotton area forecast for NSW is set at conservative levels. Above average inflows into irrigation catchments this coming winter/spring period may result in substantial increases in cotton planting over and above the current forecast.

Figure 5 – Australia Chance of Exceeding Median Rainfall for Apr-Jun 2020



Source: Bureau of Meteorology

Although area is expected to expand in 2020/21, yields are forecast to decline an estimated 10 percent from the high levels in 2019/20. These would be more consistent with longer-term yields.

The Australian cotton production estimate for 2019/20 was revised to 625,000 bales, which if realized would be the same as 2007/2008 production and the lowest levels since 1982/83. This crop is being currently harvested in Australia. The sharply smaller production is a result of drought impacts that have resulted in limited irrigation water availability throughout the key producing areas.

Consumption

Domestic cotton processing volumes are extremely low in Australia. Manufacturing in Australia is uncompetitive due to the high cost of labor relative to the major cotton processing countries such as China, Indonesia, Vietnam, Bangladesh and India. There is no anticipated change to this situation and domestic consumption is forecast to remain at low levels.

Exports

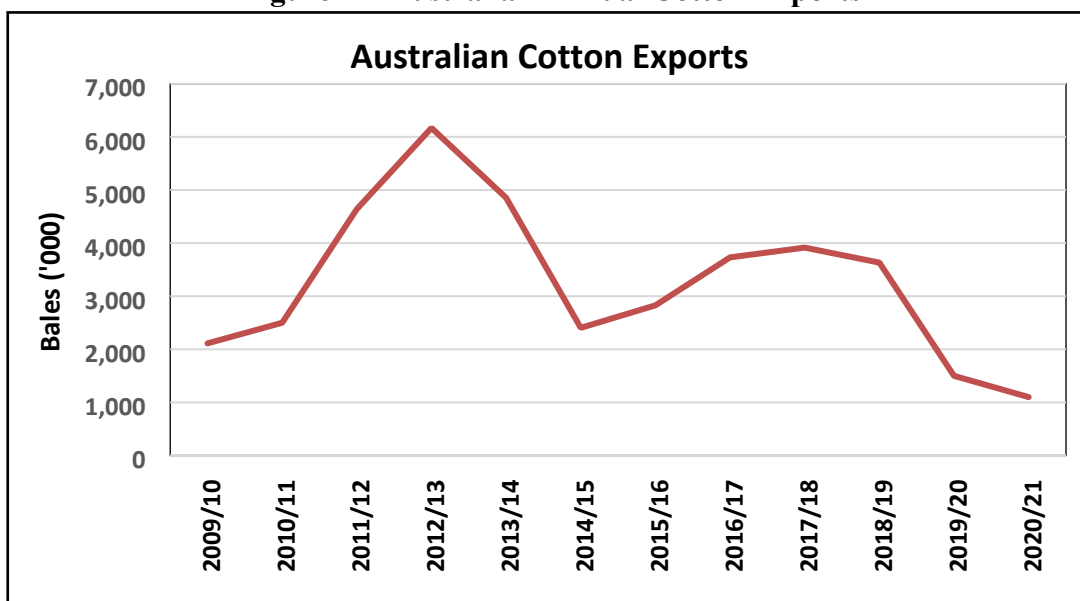
2020/21 exports are forecast to fall to the lowest level in three decades to only 1.1 million bales, from a revised estimate of 1.5 million bales in 2019/20. Despite higher expected production in 2020/21, that crop will typically only impact exports for the last three months of the Aug-Jul marketing year (see Figure 6 below for seasonality of marketing year exports). Very low carry-in stocks from the extremely small 2019/20 crop (being harvested now) is expected to dramatically drop exports throughout most of 2020/21.

Figure 6 – Australian Cotton Seasonality



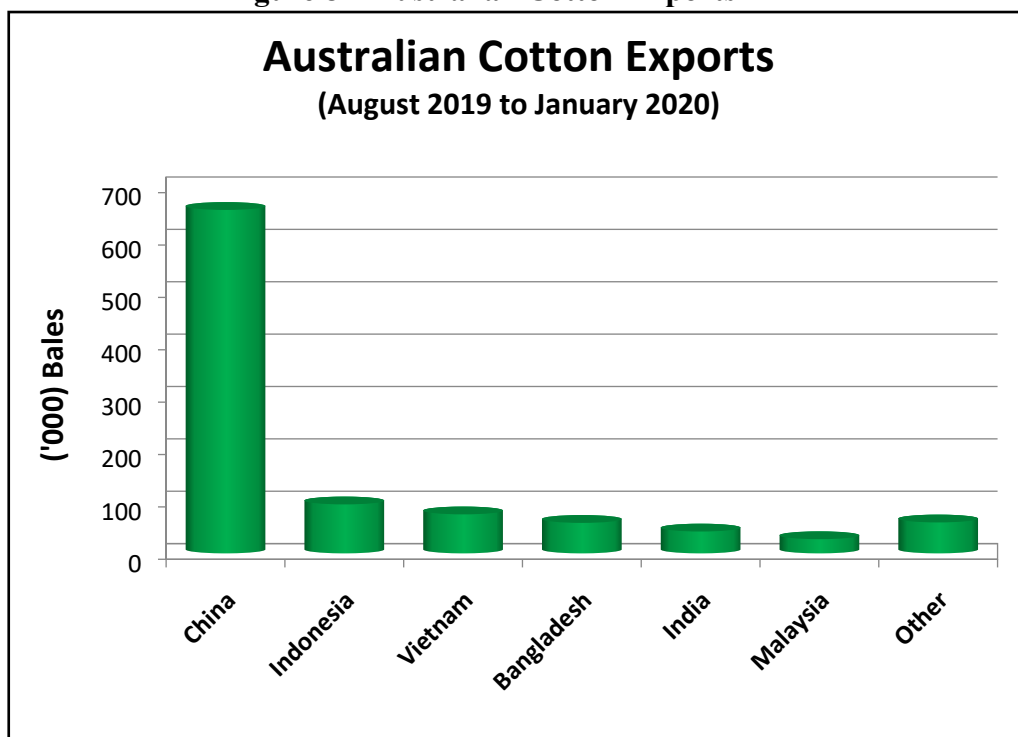
Source: Trade Data Monitor

Figure 7 – Australian Annual Cotton Exports



Source: Trade Data Monitor, FAS/Canberra estimates and forecasts for 2019/20 and 2020/21
Australia exports practically all of its cotton production, primarily to China, Indonesia, Vietnam, Bangladesh and India. China is the main export market which so far in 2019/20 has accounted for nearly two-thirds of total exports (see Figure 8 below). Australia in typical years is the third or fourth largest exporter of cotton behind the United States, Brazil, and India.

Figure 8 – Australian Cotton Exports YTD



Source: Trade Data Monitor

Stocks

Ending stocks in 2020/21 are forecast to nearly double to 1.077 million bales as a result of the expected recovery in production next year. 2019/20 ending stocks (and 2020/21 beginning stocks) are estimated to be at only 522,000 bales, the lowest level in over thirty years. The large variation in ending stocks is entirely driven by the volatility of cotton production in Australia and the picking season (March to June) being at the tail end of the marketing year (August to July). As a result, approximately 55 percent of production each year typically is carried forward into the subsequent marketing year in the form of stocks. For 2019/20, the combination of an extremely small crop and almost no stocks of old crop cotton when harvest commenced has resulted in these historically low ending stocks.

Cotton Market Begin Year Australia	2018/2019		2019/2020		2020/2021	
	Aug 2018		Aug 2019		Aug 2020	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	380	345	60	60	0	180
Beginning Stocks	3039	2889	1572	1422	0	512
Production	2200	2200	675	625	0	1700
Imports	0	0	0	0	0	0
MY Imports from U.S.	0	0	0	0	0	0
Total Supply	5239	5239	2247	2197	0	2362
Exports	3632	3632	1300	1500	0	1100
Use	35	35	35	35	0	35
Loss	0	0	0	0	0	0
Total Dom. Cons.	35	35	35	35	0	35
Ending Stocks	1572	1422	912	512	0	1077
Total Distribution	5239	5239	2247	2197	0	2362
Yield	1261	1388	2449	2268	0	2056

(1000 HA) ,1000 480 lb. Bales ,(PERCENT) ,(KG/HA)

Industry Issues

Fall Armyworm has recently entered Australia via far north QLD and has in a matter of months now reached the Burdekin region south of Townsville at the southern end of north QLD. The cotton industry has been monitoring its progress and industry entomologists advise that its major impact is likely to remain within tropical areas away from most of the Australian cotton growing regions. Industry entomologists also consider that it is unlikely to have a significant impact on cotton production if it were to infest cotton growing regions due to biotech traits in cotton varieties and existing pest management programs.

The cotton industry has identified scope for expansion in the Ord River irrigation scheme in north west Western Australia. Trials are being carried out in the area to determine its suitability. There are no ginning facilities in the area at present and transport logistics pose a substantial economic hurdle at present due to a 10-hour commute to the nearest port in Darwin, Northern Territory. The shipping costs from Darwin at present are also substantially higher compared with Brisbane port from which Australian cotton is currently shipped. The prospect of significant industry expansion in this region remains although it is not anticipated in the short to medium term. Other expansion options in Australia involve shifting irrigation water usage from other lower value agricultural uses to cotton, but this is also not expected to be significant in the short to medium term.

Attachments:

No Attachments