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Australia

Cotton and Products Annual

2016

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Report Highlights:
In 2016/17, cotton production is expected to reach 2.5 million bales, assuming the continuation of average seasonal conditions. Production in 2015/16 is estimated at 2.4 million bales, or four percent below the official forecast, as a result of adverse weather. The area harvested in 2016/17 is forecast at 280,000 hectares, compared to 263,000 hectares in 2015/16 and slightly below the official estimate. The trend to 2016/17 is for an expanding harvest area into southern New South Wales. Cotton prices appear to be promising, especially compared to alternative summer crops such as sorghum. The Post forecast for exports is the same as the official estimate of 2.75 million bales for 2016/17 and 2015/16, assuming average seasonal conditions.

Commodities:
Cotton

Overview

Australia is one of the world's largest exporters of raw cotton with over 90 percent of the domestic crop exported, mainly to China, Indonesia and Thailand. Cotton is predominantly irrigated and grown in New South Wales (NSW) and southern Queensland. The major production area in NSW stretches south from the Macintyre River on the Queensland border and covers the Gwydir, Namoi and Macquarie valleys. In NSW cotton is also grown along the Barwon and Darling Rivers in the west and the Lachlan and Murrumbidgee rivers in the south and has been spreading into new regions such as Forbes. In Queensland, cotton is grown mostly in the south in the Darling Downs, St George, Dirranbandi and Macintyre Valley regions. The remainder is grown near Emerald, Theodore and Biloela in Central Queensland.

Cotton is planted from September in Queensland to mid-November in NSW and then harvested from March to June respectively. Australia is an efficient producer with the world's highest cotton yields due to the predominance of irrigation and the use of genetically modified varieties. Dryland cotton has declined in recent years because of low soil moisture but is expected to account for 15 percent of the harvest area in 2015/16 due to favorable conditions.

Seasonal Conditions and Water Availability

In 2015/16, seasonal conditions were favorable for the growing of cotton in Australia and water storages in most growing regions were at higher levels in early 2016 than in early 2015 (see Table 1). Production was supported through an expansion in area due to increased irrigation water availability and improved soil moisture following timely rains and more moderate temperatures in growing regions. Importantly, average rainfall occurred in the 2015/16 planting window from September 2015. Further, there was above average rainfall in November 2015, which improved water storage levels in dams in cotton growing regions. In addition, the rainfall supported increased planting of dryland cotton. Overall, average temperatures and rainfall supported the maturation of the cotton crop (Charts 1 and 2).

Australia's cotton industry is considered the most water-efficient in the world and has achieved a 40 percent increase in water productivity over the last decade. Major factors have been the introduction of more drought tolerant cotton varieties and water saving technology, as well as a significant research effort funded by a levy on production. Cotton appears to provide a higher return per megaliter of water than a number of other irrigated crops and this has encouraged farmers to switch to the crop. Currently, cotton crops have an average water requirement of 8 megaliters per hectare. In 2014, cotton used one quarter of total irrigation water.

Around 95 percent of the irrigated cotton area in Australia is grown using furrow irrigation systems while a small minority use other systems such as lateral move irrigators, center pivots and drip irrigation. Many farmers have introduced technology to improve water efficiency. Around 80 per cent of cotton farmers use soil moisture monitoring to schedule irrigation.

The emergence of southern New South Wales (NSW) as a major producer of cotton has helped increase resilience to seasonal variations as water reliability is higher in this region than in northern NSW or Queensland. Production in the Lachlan, Murrumbidgee and Murray is expected to account for at least a quarter of the Australian cotton crop in 2016/17 and has been supported by an expansion in the number of cotton gins in this region. In 2015, water embargoes were eased in northern NSW and local management schemes were established to increase the efficiency of irrigation in three Queensland cotton-growing districts. Large areas of the Darling Downs and northern NSW are used for dryland cotton.

Table 1: Water storages for the Australian cotton industry, 2013-2015 (megaliters)

Dam	Region	Full Capacity (ML)	Actual Capacity (%)			
			2013 February	2014 February	2015 February	2016 March
Beardmore	Emerald	82	82	60	84	82
Leslie	Darling Downs	106	74	36	27	18
Glenlyon	Border Rivers	250	94	37	28	73
Pindari	Border Rivers	312	63	17	14	118
Copeton	Gwydir Valley	1,362	73	32	18	239
Split Rock	Namoi Valley	397	87	21	7	26
Keepit	Namoi Valley	425	40	16	6	52
Burrendong	Macquarie Valley	1,188	46	27	16	193
Windamere	Macquarie Valley	368	56	49	44	147
Wyangala	Lachlan Valley	1,220	71	57	37	525
Burrinjuck	Murrumbidgee Burrinjuck	1,026	67	85	32	423
Total		8,037	66%	43%	<40%	na

Note: The assessment of water in storage does not include water in private storage.
Source: Murray Darling Basin Authority and Post estimates.

Another factor providing greater flexibility to changing seasonal conditions has been a 4-week extension in the season's planting window since 2014. This has been partly due to the introduction of more drought tolerant cotton varieties such as the Bollard II cotton variety. A new variety of genetically modified cotton, Bollgard III, is currently being trialed and is expected to be available to the Australian cotton industry in late 2016.

Cotton Technology and Research

Genetically modified (GM) cotton has been grown in Australia for twenty years and now accounts for over 99 percent of production. The use of GM varieties of cotton to increase insect resistance or to increase herbicide tolerance has reduced pesticide use on the Australian cotton crop by around 85 percent when compared to previously grown conventional varieties. Under this program, Australia has effectively developed new strains of cotton to suit local conditions. Over 2014, there were a series of trial GM cotton plantings in NSW still under review.

The cotton R&D program is funded by cotton growers who pay a compulsory levy per bale of cotton they produce and this is matched by the Australian government. The plant breeding program is led by

the Commonwealth Scientific and Industrial Research Organization (CSIRO) and also includes Cotton Australia and the Cotton Research and Development Corporation.

Chart 1: Three-month rainfall for December 2015 to February 2016

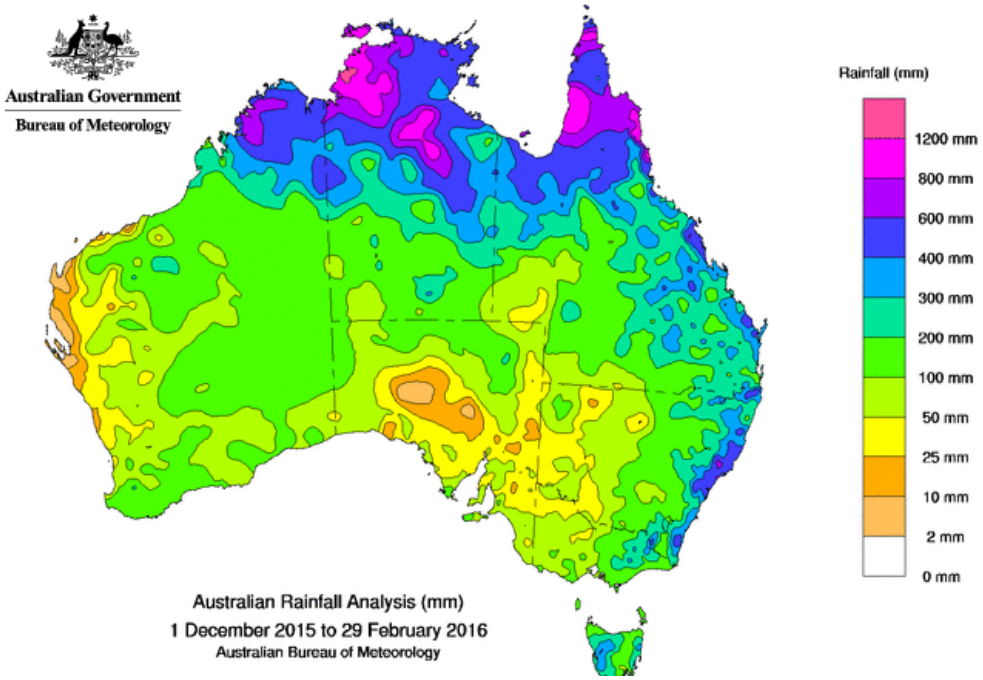
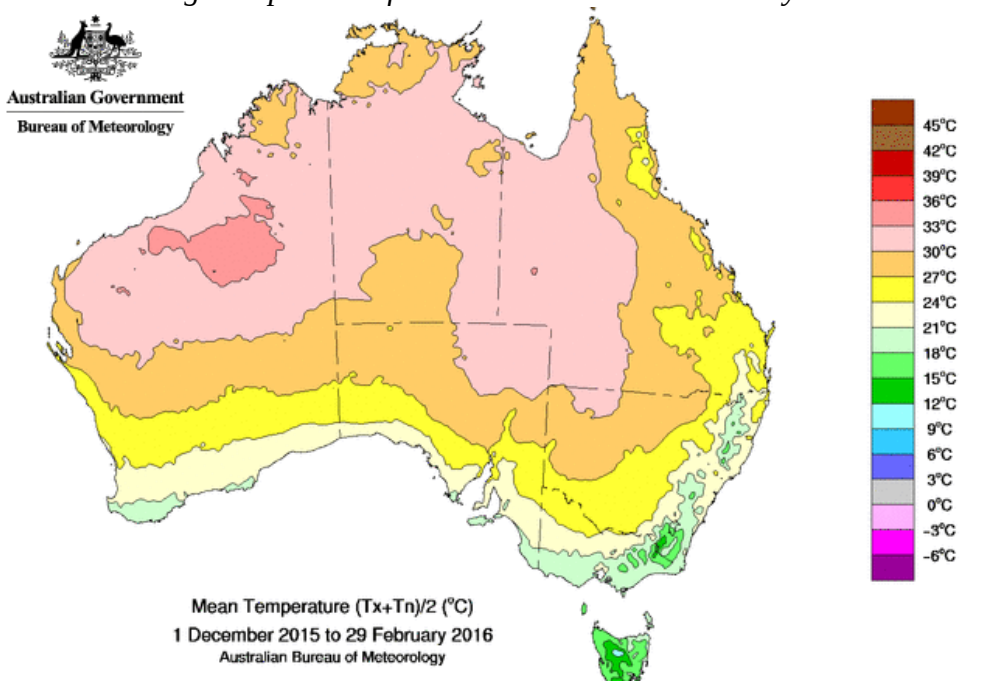


Chart 2: Average temperature for December 2015 to February 2016



Source: Australian Bureau of Meteorology (2016).

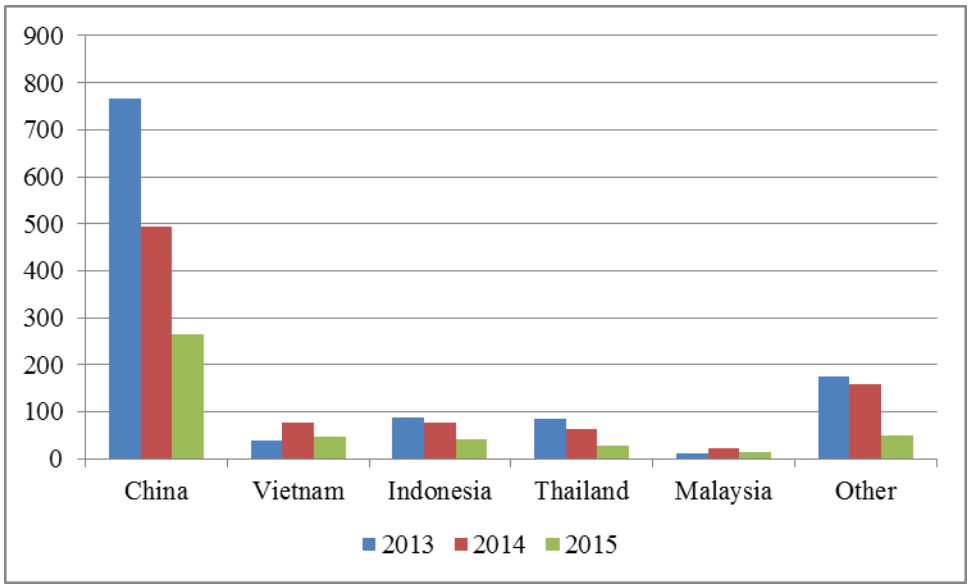
Production

Australian cotton production is forecast to be 2.5 million bales in 2016/17, slightly above expected production of 2.4 million bales in 2015/16. The estimate for 2015/16 is 4 percent below the official forecast because of the impact of a number of adverse weather events, such as heavy storms in NSW. The harvest area for cotton in 2016/17 is expected to reach 280,000 hectares, while the estimate for 2015/16 of 263,000 is eight percent below the official estimate for that year although Post expects that this forecast will be reached in 2016/17.

Trade

Cotton exports from Australia are forecast to be 2.75 million bales in 2015/16 and 2016/17, in line with official forecasts. Australia usually ranks as the world's third largest raw cotton exporter, behind the United States and India. It exports around 95 percent of its raw cotton, with China the leading market. China is currently reducing its import purchasing program because of its high levels of stocks but is still expected to be the main destination for Australian exports, followed by Vietnam and Indonesia. The weaker Australian dollar has to some extent offset the lower world price (in US dollars) for cotton growers and the relatively high return compared to alternative crops is encouraging the expansion of both production and exports into the future.

Chart 3: Australian cotton exports by country, 2013-2015 ('000 MT)



Source: Global Trade Atlas.

Production, Supply and Demand Data Statistics:

Cotton	2014/2015		2015/2016		2016/2017	
Market Begin Year	Aug 2014		Aug 2015		Aug 2016	
Australia	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Planted	0	0	0	0	0	0
Area Harvested	205	222	314	263	0	280
Beginning Stocks	1807	1807	1779	1822	0	1544
Production	2300	2338	2500	2407	0	2500
Imports	0	0	0	0	0	0
MY Imports from U.S.	0	0	0	0	0	0
Total Supply	4107	4145	4279	4229	0	4044
Exports	2393	2388	2750	2750	0	2750
Use	35	35	35	35	0	35
Loss	-100	-100	-100	-100	0	-100
Total Dom. Cons.	-65	-65	-65	-65	0	-65
Ending Stocks	1779	1822	1594	1544	0	1359
Total Distribution	4107	4145	4279	4229	0	4044
(1000 HA) ,1000 480 lb. Bales						

Notes: (a) 'New Post' data reflect author's assessments and are not official data;
(b) Data in the table is in '000 bales with one MT equal to 4.593 bales.