



Foreign Agricultural Service

**GAIN Report**

Global Agriculture Information Network

Required Report - public distribution

Date: 6/1/2001

GAIN Report #AS1015

## Australia

## Cotton and Products

## Annual

## 2001

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### Report Highlights:

The 2000/01 Australian cotton crop is estimated at 735 TMT, slightly lower than the 741 TMT produced in 1999/2000. Cotton production for the 2001/02 season is forecast at 760 TMT. Exports of cotton in 1999/2000 finished 6 percent higher at 699 TMT. Export figures for the first eight months of 2000/01 show exports up 14 percent.

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Includes PSD changes: Yes

Includes Trade Matrix: Yes

Annual Report

Canberra [AS1], AS

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## **Executive Summary**

The 2000/01 Australian cotton crop is estimated at 735,000 MT, slightly lower than the previous year. The Australian Bureau of Agriculture and Resource Economics (ABARE) has production at 755,000 MT. Despite an improved price outlook at time of planting, planted area was up only four percent on the previous year. Industry sources suggest poor soil moisture at the beginning of the season greatly constrained planting, particularly of dryland cotton.

The 2000/01 crop experienced mixed growing conditions and quality suffered in some areas. Industry sources suggest that the hotter than average conditions experienced during January and February, increased fibre density in some areas in Northern NSW and Southern Queensland. Both NSW and Queensland experienced a dry harvest. Quality problems associated with last years wet harvest such as boll rot were generally not experienced in 2000/01.

Cotton production for the 2001/02 season is forecast at 760,000 MT, slightly higher than the estimate for the previous year. ABARE has forecast production at 785,000 MT. The key to this forecast is sufficient soil moisture at time of planting to encourage planting of dry land cotton.

The long term forecast, as reported by ABARE, is for Australian cotton production to increase to 838,000 MT by 2005/2006. This forecast is heavily dependant on the expected improvement in world cotton prices. ABARE reports the continued expansion of cotton production will be limited by the "physical sustainable limit of water availability".

Exports of cotton in 1999/2000 finished 6 percent higher, when compared to the previous year. This was due to the relatively high level of carry over stocks and increased production achieved in the previous year.

Export figures for the first eight months of 2000/01 have exports increasing by 14 percent when compared to the same period in 1999/2000. Growth in export tonnages during this period occurred in Indonesia, Thailand and the Republic of Korea. Japan represented the only fall in the top five export destinations. Despite strong export growth during this period, post forecasts only a slight overall increase for 2000/01, with total exports reaching 707,000 MT, in line with ABARE's estimate.

## Cotton

### Production

PSD Table						
Country	Australia					
Commodity	Cotton				(HECTARES)(MT)	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		08/1999		08/2000		08/2001
Area Planted	0	0	0	0	0	0
Area Harvested	464000	464000	485000	484000	0	516000
Beginning Stocks	389731	389731	411721	411868	357289	419441
Production	740270	741000	718498	735000	0	760000
Imports	0	349	0	300	0	300
TOTAL SUPPLY	1130001	1131080	1130219	1147168	357289	1179741
Exports	698685	698985	751157	707000	0	726000
USE Dom. Consumption	41368	42000	43545	42500	0	43000
Loss Dom. Consumption	-21773	-21773	-21773	-21773	0	-21773
TOTAL Dom. Consumption	19595	20227	21772	20727	0	21227
Ending Stocks	411721	411868	357289	419441	0	432514
TOTAL DISTRIBUTION	1130001	1131080	1130218	1147168	0	1179741

### General

The 2000/01 Australian cotton crop is estimated at 735,000 MT, slightly lower than the previous year. The Australian Bureau of Agriculture and Resource Economics (ABARE) has production at 755,000 MT. Despite an improved price outlook at time of planting, planted area was up only four percent on the previous year. Industry sources suggest poor soil moisture at the beginning of the season greatly constrained planting, particularly of dryland cotton.

Weather conditions throughout the season have been described by industry sources as mixed. Dryer conditions leading up to and during planting greatly reduced soil moisture at planting time. In NSW, these conditions were followed by rain and in some areas flooding which damaged some crops. In Queensland, dryer conditions persisted into the growing season straining irrigation resources. Hotter than average conditions in January and February affected cotton in northern NSW and southern Queensland during the critical time of flowering and boll fill, adversely affecting yield and to a lesser extent quality.

Cotton production for the 2001/02 season is forecast at 760,000 MT, slightly higher than the estimate for the previous year. ABARE has forecast production at 785,000 MT. The key to this forecast is sufficient soil moisture at time of planting to encourage planting of dry land cotton.

The long term forecast, as reported by ABARE, is for Australian cotton production to increase to 838,000 MT by 2005/2006. This forecast is heavily dependant on the expected improvement in world cotton prices. ABARE reports the continued expansion of cotton production will be limited by the "physical sustainable limit of water availability".

## **Weather**

Dry conditions and low levels of soil moisture greatly constrained plantings of dryland cotton in 2000/01 according to industry sources, despite an improved price outlook at time of planting.

While growing conditions in NSW were generally good, flooding in the Namoi valley required some cotton to be replanted. Hotter than average conditions also stressed cotton plants in some areas of northern NSW.

Dryer than average conditions in Queensland reduced both planted area and yield. These conditions have persisted in some areas of Queensland and representative groups are now seeking assistance from the Government of Australia (GOA).

## **Crop Area**

Total area of cotton planted in Australia is typically driven by both soil moisture and irrigation water availability at time of planting, as well as the general price outlook for the upcoming season. Dryland plantings are most variable with farmers rapidly expanding area when prices are strong and soil moisture is good.

Environmental issues have grown in importance in recent times. Governments at all levels have tightened regulations in an effort to protect the environment. This has affected many aspects of cotton production including chemical application, genetic modification and water usage. Water usage is described by industry sources as the most fundamental constraint to the area of crop planted each year. Recent regulatory changes have attempted to limit the amount of water used for irrigation in order to improve river flows for environmental reasons.

Future expansion of cotton production on a large scale will be limited to valleys that have not yet reached their full development potential, such as the Lachlan/Murrumbidgee valley where cotton production is a relatively new enterprise. In this valley alone, plantings in the Hillston area increased from 13,000 Ha in 1999/2000 to 20,000 Ha in 2000/01. This figure is expected to increase to 30,000 Ha in 2001/02. Other valleys that are more developed and have reached the physical sustainable limit of water availability will rely on water efficiency savings in order to increase crop area. Continued expansion in these areas is expected to be slower and incremental.

At the time of writing this report some cotton producing areas of Queensland are experiencing drought conditions and continued dry weather would again constrain plantings of dryland cotton for the 2001/02 season. ABARE forecasts the total cotton area for the 2001/02 season at 516,000 ha, a 7 percent increase on the previous season. The long term outlook for planted area as reported by ABARE is for cotton plantings to reach 534,000 ha by 2005/2006. This represents a steady growth rate of one percent per year.

The following table gives area harvested ('000 ha) for cotton in Australia.

Year (a)	New South Wales	Queensland	Australia
1989/90	175.0	64.8	239.8
1990/91	197.0	73.0	270.0
1991/92	207.5	74.1	281.6
1992/93	204.0	66.0	262.0
1993/94	181.9	82.5	264.4
1994/95	127.1	94.4	221.5
1995/96	186.0	118.0	304.0
1996/97	290.2	118.3	408.5
1997/98	299.0	139.0	438.0
1998/99 (p)	382.0	170.0	552.0
1999/2000 (s)	313.0	151.0	464.0
2000/2001 (f)	309.0	175.0	484.0

(a)Crop year (August-July). (p) Preliminary. (s) Estimated. (f) Forecast.

Note: Table does not include the small amounts of cotton grown in WA.

SOURCE: Australian Bureau of Agricultural & Resource Economics.

## Inputs

In 1994, The Council of Australian Government (COAG), representing the Federal Government and all State Governments, reached agreement on water management policy for the Murray-Darling Basin. The agreement has numerous recommendations regarding water usage with a key recommendation to cap water use at the levels reached in 1994. State Governments were to develop their own water regulations within the COAG Agreement. NSW (where around two thirds of Australia's cotton is grown), is in the process of developing new legislation. This new legislation is expected to: formally recognize the concept of "environmental flows"; allow for freer trade of water rights between farmers in the same catchment area; in some instances, allow water rights trade between farmers in different catchment areas. Queensland has yet to set the cap on water use within its borders.

Commonwealth and State Government water reforms include additional cost recovery in water pricing and more efficient use of water. This will limit the expansion of irrigated cotton plantings. Future expansion is likely to be at the expense of existing irrigated crops. Increases in plantings may be possible if water is used more efficiently. Some improvement in cotton yields is projected as growers employ more efficient agronomic practices and use improved plant varieties.

## **Yields**

The 2000/01 crop experienced slightly lower yields when compared to the previous year due to mixed seasonal conditions. Hotter than average conditions, drought and some flooding contributed to constrain yields from being above average.

Post estimates yield at around 1.5 MT/ha for 2000/01, which equates to 6.6 bales/ha, assuming a bale average of 227 kg. ABARE estimates yield at 1.6 MT/ha (7.0 bales/ha).

Post forecasts yields for 2001/02 to average 1.5 MT/ha (6.6 bales/ha), in line with ABARE estimates.

## **Crop Quality**

The 2000/01 crop experienced mixed growing conditions and quality suffered in some areas. Industry sources suggest that the hotter than average conditions experienced during January and February, increased fibre density in some areas in Northern NSW and Southern Queensland.

Both NSW and Queensland experienced a dry harvest. Quality problems associated with last years wet harvest such as boll rot were generally not experienced in 2000/01.

## **Cross Commodity Developments**

In recent years the success of cotton, on a return per hectare basis, has encouraged farmers to switch many competing crops to cotton. Irrigated crops such as sorghum and oilseeds on the Darling Downs in Queensland, have been transferred to cotton. Dryland crops such as wheat around the north west of N.S.W. have also been converted to cotton. This trend seems likely to continue in the medium term as long as climatic conditions allow. The downturn in cotton prices, while affecting the level of dryland cotton planted, is not expected to change plantings of irrigated cotton as it still compares favorably with other crops. Dryland cotton plantings are expected to rebound as the outlook for world cotton prices improves.

## **Consumption**

### **Utilization Patterns**

Over 90 percent of Australia's cotton production is exported each year. The remainder is processed by one of Australia's five spinners. Until recently, the five major spinners are Actil Textiles, producing mainly bed sheeting; Bonds Industries, producing garments; A.W. Spinning, producing yarn for sale to knitters and weavers for further processing; Rocklea Mills, producing yarn for sale to knitters and weavers; and Bradmill producing mainly denim and some heavier canvas products. Recent media reports state that Bonds spinning has been closed and Bradmill is in receivership.

## Prices

Returns to the Australian cotton crop are heavily influenced by the Australian dollar exchange rate. During the 2000 Calendar Year (CY) the A\$/US\$ exchange rate fluctuated between US\$0.50 and US\$0.64. This has since stabilized and for the month of April 2001, averaged around US\$0.51. It is interesting to note that although the price quoted by "Cotlook" has fallen recently, the depreciation of the Australian dollar has maintained prices in Australia.

The following table gives monthly prices for Australian cotton

	1999		2000		2001	
	Cotlook USc/lb	Aust. Ac/kg	Cotlook Usc/lb	Aust. Ac/kg	Cotlook USc/lb	Aust Ac/kg
<b>January</b>	55.75	247.00	47.60	184.00	64.13	239.00
<b>February</b>	56.15	245.00	53.85	194.00	60.40	248.00
<b>March</b>	56.75	246.00	57.40	197.00		
<b>April</b>	57.90	226.00	58.70	205.00		
<b>May</b>	59.90	211.00	65.50	211.00		
<b>June</b>	58.50	207.00	59.47	202.00		
<b>July</b>	54.40	201.00	58.38	206.00		
<b>August</b>	51.00	201.00	60.86	209.00		
<b>September</b>	49.35	198.00	61.65	225.00		
<b>October</b>	47.45	198.00	60.90	237.00		
<b>November</b>	46.15	196.00	63.98	243.00		
<b>December</b>	44.20	197.00	65.87	238.00		

NOTE: Averages of daily quotations of Cotlook "A" Index. Australian prices quoted are equivalent to 'in store' prices - that is, Cotlook prices in USc/lb to which freight differentials have been added, then converted to Australian currency, with "into store" charges added. Prices approximate import parity prices.

SOURCE: Australian Bureau of Agricultural & Resource Economics.

**Trade**

Import Trade Matrix			
Country	Australia		
Commodity	Cotton		
Time period	Yr End Jul	Units:	MT
Imports for:	2000		2001
U.S.	10	U.S.	22
Others		Others	
India	152	Indonesia	30
Indonesia	119	India	23
Belgium	24	Hong Kong	7
United Kingdom	18		
China	17		
Italy	9		
Total for Others	339		60
Others not Listed	0		0
Grand Total	349		82

(NB. 2001 figures are partial year Aug 00 - Mar 01)

Export Trade Matrix			
Country	Australia		
Commodity	Cotton		
Time period	Yr End Jul	Units:	MT
Exports for:	2000		2001
U.S.	50	U.S.	392
Others		Others	
Indonesia	182808	Indonesia	139841
Japan	137135	Japan	90535
Thailand	97076	Thailand	70005
Rep of Korea	51181	Rep of Korea	33403
India	47990	India	29495
Pakistan	34460	Taiwan	16321
Taiwan	27311	Italy	15891
Italy	24269	Hong Kong	11768
Bangladesh	19142	Bangladesh	10918
The Philippines	11545	Ireland	8503
Total for Others	632917		426680
Others not Listed	66018		47076
Grand Total	698985		474148

(NB. 2001 figures are partial year Aug 00 - Mar 01)

## General

Export figures for 1999/2000 indicate that exports of cotton finished 6 percent higher, when compared to the previous year. This was due to the relatively high level of carry over stocks and increased production achieved in the previous year.

Export figures for the first eight months of 2000/01 indicate that exports for this period have increased by 14 percent when compared to the same period in 1999/2000. Growth in export tonnages during this period occurred in Indonesia, Thailand and the Republic of Korea. Japan represented the only fall in the top five export destinations. Despite strong export growth during this period, post forecasts only a slight overall increase for 2000/01, with total exports reaching 707,000 MT, in line with ABARE's estimate.

Export destinations for the first nine months of 2000/01 are dominated by Asian countries including Indonesia, Japan, Thailand, the Republic of Korea, India and Taiwan. These top six export destinations accounted for 80 percent of total exports during this period.

## **Policy**

### **Production Policy**

During the 1996-97 season the cotton industry established the Australian Cotton Industry Council (ACIC). ACIC presents a united industry approach in dealings with government, service providers, chemical companies and the community. This organization helps promote co-operation between various industry bodies.

The Cotton Research and Development Corporation was established in 1990 and is the major funding body for cotton research and development. The vast majority of the Corporation's research funds are invested in the areas of crop protection and sustainable farming practices, such as reducing chemical usage, and in developing new varieties. Growers have contributed A\$1.75 per bale as a research levy from 1991/92. The Australian government provides funds on a dollar for dollar basis for research and development up to 0.5 percent of the gross value of production.

The following table lists industry and government contributions to cotton research and development.

	<b>Industry Contributions A\$</b>	<b>Government Contributions A\$</b>
<b>1991/92</b>	3,776,000	2,488,000
<b>1992/93</b>	3,892,486	2,217,569
<b>1993/94</b>	2,565,529	2,927,564
<b>1994/95</b>	2,128,593	2,873,714
<b>1995/96</b>	2,901,581	3,204,647
<b>1996/97</b>	4,717,809	2,741,213
<b>1997/98</b>	5,477,692	4,848,719
<b>1998/99</b>	4,679,000	5,444,000

Source: Cotton Research & Development Corporation.

In recent years there has been increasing environmental concerns in Australia. The cotton industry has responded with the introduction of a Best Management Practices (BMP) plan. The BMP program revolves around changing farming operations to improve environmental performance. The Good Neighbors Program was also introduced to improve environmental efforts and community relationships. The Good Neighbors Program is designed to encourage all growers to adopt BMP by 2001, however this has not yet been achieved as some producers are yet to adopt this program. The importance of the program was highlighted by the fact that it was launched by the N.S.W. and Queensland Premiers and the Federal Minister for Agriculture Fisheries and Forestry. The importance of this type of program was highlighted when a number of cattle were detected with endosulfan residues during the 1998/99 season. This put pressure on Australian administrators to withdraw or restrict the use of endosulfan in the cotton industry.

The Australian cotton industry planted the first Genetically Modified (GM) cotton known as Ingard during 1996/97. This variety helps control insect pests and reduces chemical usage. Around 30,000 ha, or around eight percent of total plantings, were sown in 1996/97. However, this area has grown dramatically in recent times. In 2000/01, around 30 percent of total plantings or approximately 145,000 ha was sown to GM cotton. Government regulations specify that a maximum of 30 percent of the total acreage can be planted to Ingard which was achieved in 2000/01.

The first three years of GM cotton have had mixed results. Industry sources state that growers and technical consultants have learned a lot from the first three years. In 2000/01, new varieties of Bt cotton provided improved efficacy against pests greatly improving the benefit of GM crops for Australian producers.

Monsanto reduced the price of Ingard (Bt) in 1998 from A\$245/ha to A\$155/ha (the initial price was A\$185/Ha with a A\$30/Ha rebate for following the resistance management plan) and the price has remained at this level through the 2000/01 season. The new system does not involve a "value guarantee" which compensated growers who paid more in spray costs than they would have paid if they had grown conventional cotton, as the efficacy has improved to such an extent that it is no longer required.

Industry sources anticipate the release in the medium term of a new type of GM cotton which is a two gene variety known as "twinguard". Industry sources believe that this will have wide ranging implications for the industry as a whole. This variety is expected to have much greater efficacy in controlling pests, and more importantly is expected to be far more effective in curbing pest resistance. Industry sources are anticipating the efficacy of this variety will allow cotton to be grown in areas not previously possible due to high pest numbers and expect it to be priced at around 90 percent of the chemical application price (for conventional varieties).

Roundup Ready Cotton is relatively new to Australia and provides a certain level of resistance to non-residual herbicides such as glyphosate. These chemicals are safer to use and environmentally more friendly as well as being less expensive and generally simplify weed control. Roundup ready cotton was produced commercially for the first time in Australia in 2000/01 with industry sources indicating plantings of around 10,000 Ha. Industry sources indicate that subsequent interest amongst producers has been high. Plantings are expected to increase to around 80,000 Ha for 2001/02.

## **Tariff Changes**

Cotton is imported into Australia free of tariff.

## **Non-Tariff Barriers**

Raw cotton bales must be compressed (350 kg/sq meter) or fumigated with methyl bromide (40 grams at 21 deg C for 24 hrs). Imports must be delivered to a processor or to a warehouse. Packaging must be burnt or treated. No seed is permitted in raw cotton imports.

## **Marketing**

### **Marketing Channels**

The cotton industry currently has seven cotton processors with an ever-expanding number of gins due to new areas being opened up and to the expansion of existing cotton areas.

The Australian Cotton Foundation (ACF) was set up in 1972 and has the following functions:

- S** act as the cotton industry's representative to the National Farmers' Federation;
- S** promote the Australian cotton industry;
- S** public and community relations, including media and government representation, industry and community

liaison;  
**S** promotion of cotton and the cotton industry.

The ACF launched the "Cotton Mark" in March 1991. The "Cotton Mark" is the logo for Australian cotton and is designed to upgrade the industry's image. The mark was designed to meet the changing demands and needs of the fashion and textile industry. The Cotton Mark is a form of quality assurance and can only be used on products that the ACF approves as of worthy quality. The goods must be made of at least 50 percent Australian cotton. Major clothing design labels are supporting the idea. Consumers are able to identify products as made of quality Australian cotton.

Since the introduction of the "Cotton Mark" the ACF has over 160 users of the distinctive label. The label is reported as appearing on over two million cotton products throughout Australia and overseas.

The ACF is currently funded by a A\$1.75 per bale levy.