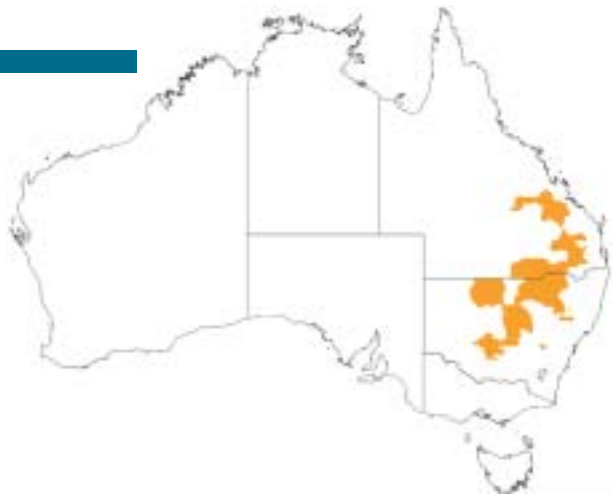
# 3 Cotton



## Location

**Grown both in irrigated and in dryland systems, around 70 per cent of Australia's cotton is produced in New South Wales, with the major production area stretching south from the Macintyre River and embracing the Gwydir, Namoi and Macquarie valleys, as well as regions along the Barwon and Darling rivers and smaller areas south. The remaining cotton is grown in southern and central Queensland.**

## Industry features

Table 6 shows the major features of the Australian cotton industry, including its size, output, market orientation and position in the global market.

Table 6 **Overview of cotton production and trade**

| | Unit | 1983–84 | 1993–94 | 2003–04 |
|---|---|---|---|---|
| **World** | | | | |
| Production | Mt | 14.4 | 16.9 | 20.6 |
| Trade | Mt | 5.9 | 6.1 | 7.2 |
| **Australia** | | | | |
| Area harvested | '000 ha | 137 | 294 | 198 |
| Average yield | | | | |
| Lint | t/ha | 1.03 | 1.25 | 1.76 |
| Cottonseed | t/ha | 1.38 | 1.58 | 2.43 |
| Lint production | kt | 141 | 368 | 349 |
| Share of world output | % | 1.0 | 2.2 | 1.6 |
| Gross value [ab] | $m | 594 | 961 | 639 |
| Domestic consumption | kt | 21 | 32 | 18 |
| Exports | | | | |
| Volume | kt | 82 | 361 | 459 |
| Value [a] | $m | 327 | 952 | 982 |
| Share of world trade | % | 1.4 | 5.9 | 6.2 |
| Imports | kt | 1.1 | 0.3 | 0.1 |
| Employment [c] | | | | |
| Cotton growing | '000 | | | 8 |

a In 2003–04 dollars.

b Includes cottonseed.

c ABS 2001a. Includes some smaller crops not separately identified.

na Not available.

*Sources: ABARE 2004, 2005; ABS 1990, 2001a, b.*

## Markets

In farm-gate value terms, 95 per cent of the cotton produced on Australian farms in 1999–2000 was exported.

Principal export markets for Australian cotton are Indonesia, China, Thailand, South Korea and Japan.

- In 2003–04, exports to Indonesia and China constituted 32 per cent and 17 per cent respectively of Australia's total cotton exports.
- As Australia does not have a significant textile production industry, most Australian cotton is exported.

Average yields have been increasing over the past ten years, largely as a result of increasing use of transgenic cotton varieties and technological improvements.

## Farm businesses

Although a small amount of incidental information on cotton-producing farms is collected during ABARE's surveys of the broadacre sector, it is not representative of the industry and does not provide an overview of cotton farm business performance.

Despite the lack of representative information on farm performance, there is no doubt that continuing productivity gains in the cotton-growing sector will be important for international competitiveness and for determining the farm-level allocation of resources between the cotton industry and other industries.

## Crop management

As growers of a relatively high-value crop, cotton producers can afford to adopt innovative technologies. Crop rotations with cereals are an integral component of the management of pests, weeds and diseases on cotton farms.

Cotton was the first Australian industry to commercialise genetically modified crop varieties.

- Ingard, a genetically modified strain of cotton, has been grown in Australia since 1996 and has contributed significantly to reduced chemical insecticide application.
- Scientific work is underway to produce cotton strains that are drought resistant, need less water and have better fibre properties (such as increased flame resistance, reduced wrinkles in fabrics, and reduced need for dyes in processing).

## Natural resource management

Water is a critical natural resource in cotton growing, with cotton using 9 per cent of Australia's total irrigation water. Some farm managers have engaged consultants and have successfully improved water use efficiency, increased the response to fertilisers and controlled pests.

- The dryland crop is vulnerable to climate variability and requires more sophisticated risk-management techniques.

Significant improvements in chemical use have been achieved.

- The quantity of chemical insecticide applied per hectare has fallen by 75 per cent for conventional cotton and by 86 per cent for Ingard cotton over the past seven years.
- Pesticide contamination of water, particularly with endosulfan, has decreased over recent years.

The industry has developed a thorough best-management practices program that combines sound science with proven practical management recommendations. Such programs benefit both the community and the environment.

## Employment and infrastructure

Employment in the cotton-growing industry accounts for less than 2 per cent of employment in the agriculture sector, and is concentrated in New South Wales and Queensland.

As well as farmers/managers, the industry also provides employment in chipping, harvesting and ginning. The workforce for these seasonal tasks has traditionally been more mobile.

## Institutional arrangements

### *Peak bodies*

The Australian Cotton Industry Council is the peak body representing all sectors of the Australian cotton industry. The council provides leadership to the whole industry — farmers, researchers, ginners, shippers and related equipment and service providers.

Cotton Australia is the peak body for Australia's 1200 cotton growers and is funded by a voluntary levy of $2 per 227 kilogram bale. Cotton Australia acts to represent and advance the interests of the Australian cotton-growing industry to government and non-government organisations, the media and the community.

The Australian Cotton Growers Research Association provides national representation for cotton farmers. The association consists of the regional cotton grower associations, most cotton-processing organisations and the suppliers of cotton seed.

### *Marketing and research and development arrangements*

The Australian Cotton Shippers' Association represents the merchant sector of the industry and is focused on the promotion of Australian cotton and the wider interests of the industry in export markets. The association's aims include preserving the sanctity of contracts and upholding the integrity of trade, as well as facilitating compliance with contractual obligations and adherence to arbitration awards.

Research and development is undertaken by the Cotton Research and Development Corporation, a statutory authority that receives levies from cotton growers and matching funding from the Australian government (up to a maximum of 0.5 per cent of industry gross value of production). In 2003–04, the corporation spent $12.6 million on research and development, equal to 2 per cent of the industry's GVP. Key research and development priorities were industry human capital development; integrated natural resource management; crop protection; farming systems; breeding and technology; and value adding and efficiency gains in the supply chain.

## Industry outlook

Some key factors for the future are:

- future water policies governing the development of a market that results in more economically efficient allocation of water
- improved on-farm water-use efficiency
- the ability of Australian farmers to maintain their price premium over internationally produced cotton, through better cotton fibre quality
- the potential to increase productivity through technological improvements, increased use of transgenic cotton and improved farming practices.