

AUSTRALIAN GROWN COTTON SUSTAINABILITY REPORT 2014





OUR APPROACH

ABOUT THIS REPORT

Cotton is the most widely produced natural fibre in the world. Every day, billions of people wear cotton clothing and use cotton fabrics and products in their everyday lives. Australia is the third largest exporter of cotton in the world and has a reputation for producing high quality cotton.

Cotton Australia and the Cotton Research and Development Corporation (CRDC) have been working together to ensure the Australian cotton industry is a global leader in sustainable agriculture.

- // Cotton Australia is the peak body for Australia's cotton growers. Cotton Australia strives to foster a world class agricultural industry that is sustainable, valued for its economic and social contributions and produces very high quality cotton which is in high demand around the globe.
- // The Cotton Research and Development Corporation's purpose is to enhance the performance of the Australian cotton industry and community through strategically investing in research and development, and its application.

The Australian cotton industry is committed to sustainability and continuous improvement. This is its first sustainability report prepared according to the principles and framework of the Global Reporting Initiative for Sustainability Reporting (G4 version). In preparing the report the industry has considered more than 100 sustainability indicators, reviewed the literature and international frameworks, and consulted stakeholders.

| | |
|-----------------------------------|-----------|
| OUR APPROACH | 1 |
| EXECUTIVE SUMMARY | 2 |
| OUR STRATEGY | 5 |
| OUR ORGANISATIONAL PROFILE | 15 |
| Economic category | 17 |
| Environmental category | 28 |
| Social category | 50 |
| OUR REPORT | 61 |
| REFERENCES | 72 |

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EXECUTIVE SUMMARY



Sustainability has long been a key focus of the Australian cotton industry. Today, Australian cotton growers grow more cotton on less land, with more efficient water use and with less impact on the environment than ever before.

The Australian cotton industry:

- // Is dedicated to becoming the producer and supplier of the most environmentally and socially responsible cotton in the world.
- // Aims to be a global leader in sustainable agriculture by investing in research and development and reporting against recognised sustainability indicators.
- // Is committed to delivering independent, evidence based assessments of its sustainability and environmental performance and communicating this with a common voice.

The industry has a strong research and development culture. Over the past 24 years, the Cotton Research and Development Corporation (CRDC) has invested \$200 million in research, development and extension on behalf of Australian cotton growers and the Australian Government – delivering an estimated minimum \$1.4 billion benefit back to growers on their farms, and twice that value to the wider community.

Cotton Australia has recently joined two international sustainability partnerships: the Cotton LEADS Program and the Better Cotton Initiative. *myBMP* is the Australian cotton industry's voluntary farm and environmental management system for growers to improve on-farm production. *myBMP* ensures that the Australian cotton industry produces economically, socially and environmentally sustainable cotton. 45 percent of Australia's cotton produced is grown on farms participating in the *myBMP* program.

ECONOMIC CATEGORY

The economic aspects considered for this report are cotton production statistics, crop yield and quality, and its economic value.

31%
MARKET SHARE

Cotton is the most widely produced natural fibre in the world and represents about 31 percent of the world textile market.

Australia produces three percent of the world's cotton but is the third largest exporter, behind the US and India. More than 99 percent of Australia's cotton is exported.

There are up to

1500



cotton farms in Australia

Australia's cotton farmers produce enough cotton to clothe 500 million people.

Australian yields are high by international standards, almost three times the world average.

ANNUAL PRODUCTION ON AVERAGE FOR THE LAST FIVE YEARS (2009-2014):

Irrigated planted area was

354,775 ha

Dryland planted area was

96,074 ha

Irrigated crop yield was

9.85 bales/ha [2236 kg/ha]

Dryland crop yield was

4.09 bales/ha [928 kg/ha]

Total production was

881,463 metric tonnes [3.9 million bales]

The gross value of production was

\$2 billion

Average cotton area per farm

495 ha

30 to 60%

Cotton is a major commodity, representing from 30 to 60 percent of the gross value of the total agricultural production in regions where it is grown. The average profitability of growing cotton in 2013 was \$410/ha.

Australian cotton is viewed worldwide as having an excellent quality fibre. It is used to produce high quality yarns for use in the woven and knitted apparel sector.

ENVIRONMENTAL CATEGORY

The environmental aspects for this report included soil health, water use, groundwater, biodiversity, riparian land management, integrated pest management, pesticide use and greenhouse gas emissions.



Farmers are taking action to improve soil health

Water is critical to maximise crop yields and fibre quality.

The proportion of farmers monitoring groundwater quality has increased significantly from 20 percent in 2006 to 62 percent in 2011.

40% 

increase in cotton water productivity over the last decade.

Comparing 5 year averages for the periods 2008-13 and 1998-03, the amount of insecticide used has reduced from 5.12 kg to 0.55 kg active ingredient per hectare.

// The whole farm irrigation efficiency index improved from 57 percent to 70 percent.

// The crop water use index is above three kg/mm/ha, high by international standards.

// 96 percent of irrigators have improved their furrow irrigation system or changed to an alternate irrigation system.

Nitrogen fertilisers and energy consumed on farms are a major source of greenhouse gas emissions, and the industry continues to invest in research, demonstration trials and decision support tools focused on improving nitrogen and energy use efficiency.

89% The cotton industry has achieved an 89 percent reduction in insecticide use.

On average cotton farms have approximately 42 percent of their land dedicated to native vegetation. More than 42,000 birds representing 45 species were found on farm water storages in the Gwydir Valley, 153 bird species were found in natural vegetation in the Namoi Valley, 450 species of invertebrates have been recorded in one cotton field during the summer.



SOCIAL CATEGORY

Key social aspects for the cotton industry include education levels, demographics, employment, health, social capital, research and development and legal compliance.

The number of cotton growers with a diploma level or above qualification has risen from 30 percent in 1990 to 50 percent in 2011. These qualification levels are higher than other agricultural sectors and above the average Australian population.

10,000 people

COTTON AUSTRALIA ESTIMATES 10,000 PEOPLE ARE DIRECTLY EMPLOYED BY THE COTTON INDUSTRY IN A NON-DROUGHT YEAR.

// There are about **6.6 people** per farm (1.6 employees/100 cotton hectares, with a highly variable range across regions).

// Cotton represents less than **0.02 percent** of all claims in agriculture for injuries less than four days and five-plus days.

// Overall cotton growers are much younger than farmers in other agricultural industries in Australia.

HIGH SOCIAL CAPITAL

// The Australian Cotton Conference is one of the largest conferences of any agricultural industry in Australia with more than **1800 delegates**.

AUSTRALIAN COTTON GROWERS ARE INNOVATIVE AND RAPIDLY ADOPT NEW TECHNOLOGIES

// **82 percent** use new round module pickers.

99% of transgenic traits for insect and weed management. **ADOPTION**

// **70 percent** of farmers use soil moisture probes, up from 40 percent in 2006 (highest of all agriculture industries in Australia).

// **90 percent** using satellite navigation systems in tractors.

// **84 percent** use a smart phone or tablet for accessing information about their farming system.

// **93 percent** of farmers use integrated pest management (IPM).



The proportion of women working in key industry organisations is

60%

OUR STRATEGY



JOINT LETTER FROM THE CHAIRS - OUR COMMITMENT TO SUSTAINABILITY

Sustainability is integral to stakeholders both within and external to the industry.

In 2009, leaders in the Australian cotton industry recognised the potential for improving industry performance, organisational collaboration and capacity through a shared view of the future. A 20 year timeline was chosen to ensure a long-term strategic focus.

The *Cotton Industry Vision 2029* is: "Australian cotton, carefully grown, naturally world's best".ⁱ

Key elements of the Cotton Industry Vision 2029 are to make Australian cotton:

- // **DIFFERENTIATED** a world-leading supplier of elite quality cotton that is highly sought in premium market segments.
- // **RESPONSIBLE** the producer and supplier of the most environmentally and socially responsible cotton in the world.
- // **TOUGH** a resilient industry, equipped for future challenges.
- // **SUCCESSFUL** exciting new levels of performance that transform productivity and profitability of every sector of the industry.
- // **RESPECTED** an industry recognised and valued by the wider community for its contribution to fibre and food needs of the world.
- // **CAPABLE** an industry that retains, attracts and develops highly capable people.

THE AUSTRALIAN COTTON INDUSTRY

- // Is dedicated to becoming the producer and supplier of the most environmentally and socially responsible cotton in the world.
- // Aims to be a global leader in sustainable agriculture by investing in research and development and reporting against recognised sustainability indicators.
- // Is committed to delivering independent, evidence based assessments of its sustainability and environmental performance and communicating this with a common voice.
- // Utilises its best management practice program (*myBMP*) as a pivotal platform to maintain the cotton industry's social licence to operate. *myBMP* provides the tools for growers to leave a smaller environmental footprint and the means to demonstrate the industry's commitment to sustainable practices.

The principles in this statement are built from the strategic plans of Cotton Australia, the CRDC and the Cotton Industry Vision 2029ⁱⁱ.

The Australian cotton industry has a 21 year history of independent environmental assessments and is unique among Australian agricultural industries in documenting performance and practice change over such a long period. Cotton Australia and CRDC are committed to continuing an independent, evidence based assessment of cotton industry's sustainability and environmental performance and reporting outcomes to stakeholders and industry.

Consumers, government and communities around the world are increasingly interested in the sustainability of agriculture and its products. As part of the industry strategy to better meet stakeholder needs, Cotton Australia has recently joined two international sustainability partnerships: the Cotton LEADS™ Program and the Better Cotton Initiative. The National Farmers Federation (of which Cotton Australia is a member), in its *Blueprint for Australian Agriculture 2013-2020*, has a high priority goal to improve and promote the agricultural industry's environmental sustainability. One of the strategies identified is to develop sustainability indicators.

Notably, at the 2013 annual International Cotton Advisory Committee (ICAC) Plenary Meeting, the committee received a report titled *Measuring sustainability in cotton farming systems: Towards a guidance framework*ⁱⁱⁱ from its Expert Panel on the Social, Environmental and Economic Performance of Cotton Production (SEEP). SEEP provided recommendations about the indicators which should be used to measure sustainability in cotton production at the global level. The recommended indicators cover the three pillars of sustainability - social, environmental and economic. This report was developed as envisaged by SEEP as part of developing an agreed set of indicators for the industry.

The Australian cotton industry is committed to a continued focus on achieving a successful, resilient and responsible industry. As part of this commitment we will establish a forum to actively engage with our stakeholders to discuss opportunities for improvement. This will include developing specific sustainability targets that:

- // Boost farm productivity.
- // Increase water use efficiency.
- // Reduce the carbon footprint.
- // Enhance biodiversity.
- // Reduce work related injuries and fatalities.
- // Facilitate increased sustainability reporting across the supply and value chain for cotton.



A handwritten signature in black ink, appearing to read 'Lyndon Mulligan'.

Lyndon Mulligan
Chair, Cotton Australia



A handwritten signature in black ink, appearing to read 'Mary Corbett'.

Dr Mary Corbett
Chair, Cotton Research and
Development Corporation