

# Australian Government 2021 Report to the International Cotton Advisory Committee

## Prepared by the Department of Agriculture, Water and the Environment

### Introduction

Cotton production forms an important economic activity for many agricultural communities in eastern Australia. The number of cotton farms ranges seasonally, from approximately 1,200 to 1,500, based on prevailing weather conditions. Around two thirds of Australia’s cotton crops are grown in the state of New South Wales, and one third in the state of Queensland. Australia’s cotton industry has benefitted greatly from innovations in plant varieties and genetic modification, opening up opportunities to expand cotton production into new locations such as northern Victoria, the Northern Territory and Western Australia, with commercial scale trials proving the agronomic viability of cotton in these areas. In 2021-22, there will be several commercial crops planted in these regions. A soon-to-be completed gin outside Katherine in the Northern Territory is expected to drive further growth in Northern Territory as well as in Western Australia.

Although a relatively minor producer on a global scale, Australia is one of the world’s largest exporters of raw cotton, with more than 99% exported annually.

### Outlook for cotton supply and demand

Australian cotton production is forecast to rise in 2021-22. After two years of drought in 2018-19 and 2019-20, Australian cotton production recovered strongly in 2020-21. A continuation of favourable climatic conditions and above average water availability are expected to stimulate a large planting of dryland and irrigated cotton in 2021-22 with strong yield potentials. Australian cotton production in 2021-22 is forecast to reach 4.6 million bales, a return to pre-drought, and near-record, production levels (Figure 1).

**Figure 1** Cotton lint production, exports and gin-gate returns, Australia, 2011-12 to 2021-22

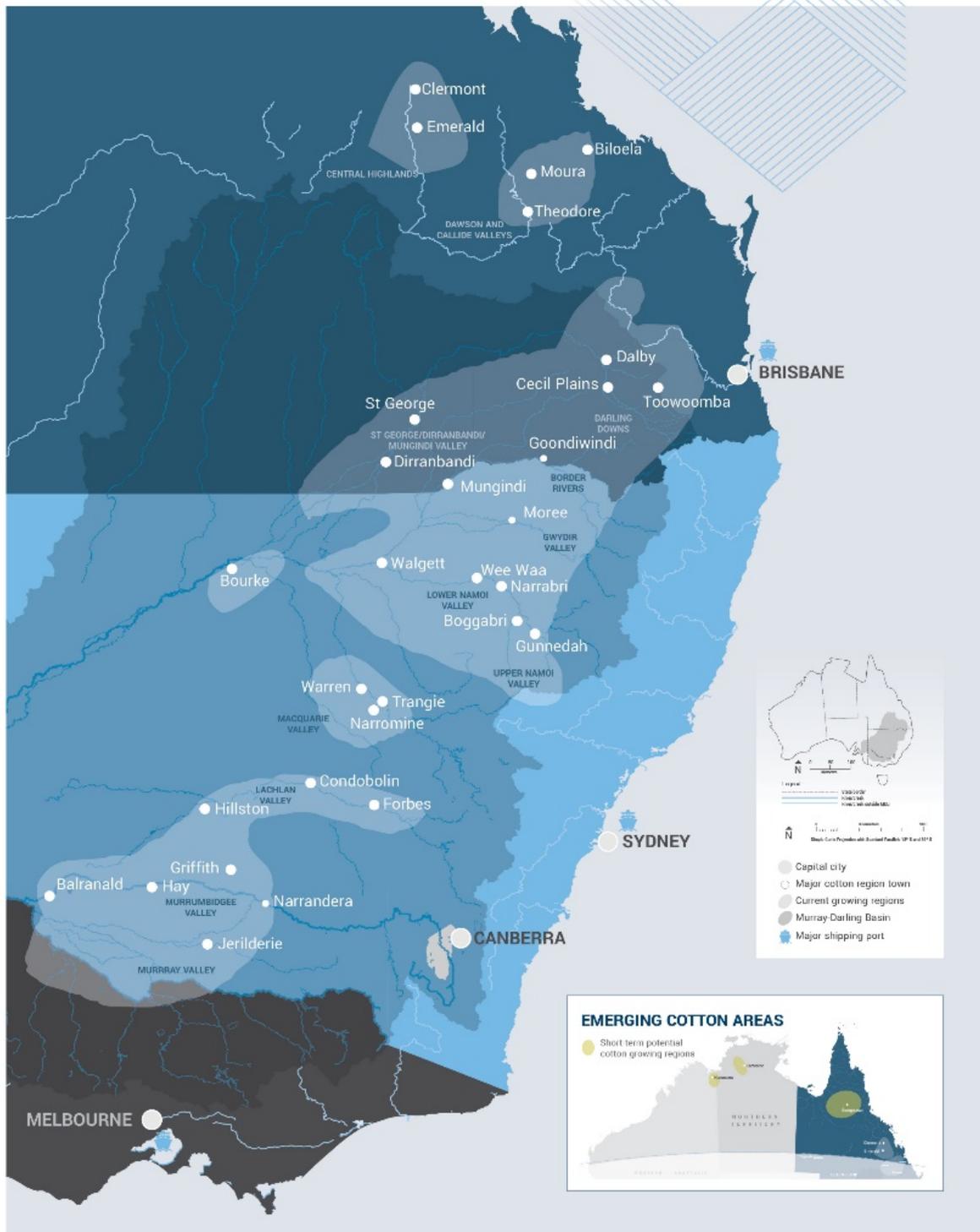


f ABARES forecast. s ABARES estimate.

(Source: ABARES, Agricultural Commodities September Quarter 2021) Note price per bale is US\$

**Figure 2** Australia's major cotton growing regions

# COTTON GROWING REGIONS



### ***Forecast production in 2021-22***

Cotton Australia, the national industry representative body, forecasts the production of Australian cotton lint to reach 1,035,553 tonnes in 2021-22, a 70% increase on 2020-21 production levels. This improvement can be attributed to greatly improved dam storage levels and seasonal conditions. Total cotton plantings are expected to cover 532,000 hectares in 2021-22, up from an estimated 297,000 hectares in the previous season.<sup>1</sup> Cotton plantings and production recovered strongly in the 2020-21 season due to the onset of La Niña climate conditions, which are associated with above average rainfall for eastern and northern Australia during winter, spring and early summer. The wet conditions are forecast to continue in the 2021-22 season, with the Australian Bureau of Meteorology expecting another La Niña event to form over late-spring. Dam levels across most growing regions have been replenished over the past year, spurring large irrigated cotton plantings. Meanwhile, the forecast wet conditions will encourage increased dryland cotton plantings and support good yield potentials.

### ***Forecast exports in 2021-22***

In 2021-22, the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) forecasts Australian cotton exports to reach approximately 749,000 tonnes. A recovery in textile demand following the easing of COVID-19 restrictions in 2021-22 is expected to keep world cotton prices elevated, contributing to an increase in the value of Australian cotton exports to around A\$2.55 billion (US\$1.92 billion<sup>2</sup>).

### ***Forecast return to growers in 2021-22***

In 2021-22, ABARES forecasts the return to Australian cotton growers to increase to an average A\$591 (US\$446<sup>2</sup>) per bale (227 kilograms), representing a 1.5% increase in returns from 2020-21.

## **Issues facing the Australian cotton industry**

### ***Cotton exports***

In 2020, China was by far the largest importer of Australian raw cotton, followed by Vietnam and Turkey. Other major importers of Australian cotton include Indonesia and Bangladesh; however, their share of Australia's exports has remained relatively small.

In addition, the Australian industry continues to explore opportunities to diversify its markets to mitigate the impacts of COVID-19, including global freight capacity constraints that are driving up shipping costs, generating greater uncertainty and limiting export options.

Finding importers for the large 2021-22 Australian cotton crop will be an ongoing issue that the Australian industry is effectively dealing with. Cotton Australia and the Australian Cotton Shippers Association have received an Agricultural Trade and Market Access Cooperation (ATMAC) grant to establish a long-term strategy for market diversification for Australian cotton.

### ***Drought preparedness***

Key issues for the Australian cotton industry include recovery from the last drought and issues relating to water security. However, drought is a recurring feature of a drying Australian landscape. The Australian Government's Drought Response, Resilience and Preparedness Plan<sup>3</sup>

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<sup>1</sup> Figures in this paragraph are provided by Cotton Australia. Variance between Australian Government forecasting and Cotton Australia can be attributed to differing forecasting methodologies.

<sup>2</sup> Based on 2021-21 currency conversion of A\$1 being equivalent to US\$0.754

<sup>3</sup> Australian Government Drought Response, Resilience and Preparedness Plan ([awe.gov.au](http://awe.gov.au))

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focuses on immediate action and support for wider communities affected by drought as well as long-term resilience and preparedness.

While most of Australia is experiencing recovery from prolonged dry conditions, the impact of drought on farmers, rural communities and the national economy is likely to worsen unless farmers continue to adapt. That is why the Australian Government has committed to support farmers and communities with the tools they need to prepare for, manage and sustain their livelihoods through drought, via the A\$5 billion (US\$3.4 billion<sup>4</sup>) Future Drought Fund. Learning to live with and adapt to climate change, including the drought cycle, will help make agricultural production – including cotton production – more productive and profitable, better protect Australia’s land and water which the industry depends on and, strengthen the rural communities that the sector supports.

### ***Water Security – Murray–Darling Basin Plan***

The Murray–Darling Basin (the Basin) is one of the most important food and fibre regions in Australia, producing one-third of the national food supply and exporting produce to many other countries. In total, the Basin contains about 40% of the nation’s irrigating agricultural businesses and accounts for roughly 91% of Australia’s total cotton farms and cotton area.

The Australian Government’s water resource management focuses on national leadership and cooperation with state and territory governments. State and territory governments have the primary responsibility to regulate and manage Australian water resources. Local government also plays a crucial role in water management, particularly managing storm water, and in some instances water supply and wastewater treatment.

In 2012, there was widespread agreement across governments that a plan was needed to manage the Basin as a connected system and protect the Basin for future generations. The Murray–Darling Basin Plan 2012 (Basin Plan) is a world-leading environmental program, which was agreed with bipartisan support in the Australian Parliament, and the support of Basin State and Territory Governments (New South Wales, Victoria, Queensland, the Australian Capital Territory and South Australia). The establishment of the Basin Plan followed several years of scientific, technical and socio-economic analysis, and extensive consultation with the public and Basin Governments. The Basin Plan aims to recover water and set some of it aside for the environment. The Basin Plan is returning the Basin to a healthier and more sustainable level, while continuing to support strong regional communities and sustainable food and fibre production.

In 2019-20, 288,000 megalitres of water was applied to 44,000 hectares of cotton plantings within the Murray–Darling Basin region. For irrigation purposes, most cotton growers in the Basin have what are classified “general, or low security” water licences, meaning that they only gain access to their share of water once the needs of communities, stock and domestic use, and the environment are met.

Floodplain harvesting is practiced in the northern Basin where cotton is grown. The Australian Government is committed to a fair and transparent process around water harvesting and water use in the Murray–Darling Basin. The New South Wales and Queensland governments are working towards licensing floodplain harvesting to ensure that water take is kept within legal limits.

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<sup>4</sup> Based on 2019-20 currency conversion of A\$1 being equivalent to US\$0.671

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The Australian Government has committed A\$13 billion (US\$9.7 billion<sup>5</sup>) to water reform in the Murray–Darling Basin, of which A\$8.5 billion<sup>6</sup> (US\$6.3 billion<sup>5</sup>) is committed to water infrastructure programs. More than 10,000 individual irrigators have benefitted from improvements to off-farm water delivery systems, and around 2,000 projects across the Basin have delivered improved returns from more efficient on-farm irrigation systems.

The Australian Government is supporting Australian agriculture’s continued growth for the future, working toward making agriculture a A\$100 billion (US\$74.7 billion<sup>7</sup>) industry by 2030<sup>7</sup>. The Australian Government is helping to increase water security in areas where extensive irrigated agriculture already exists, while also helping to unlock new agricultural regions, especially in Australia’s north.

### ***Labour and skills shortage***

The Australian agriculture sector is currently experiencing a labour and skills shortage, driven by an ageing workforce and low attraction rates. This is being felt in the cotton industry, which is facing the challenge of attracting and retaining core staff, on-farm labour (unskilled and skilled, especially due to the COVID-19 restrictions reducing availability), and access to professional advisers and service providers. The remoteness of cotton farms in Australia also impedes recruitment.

The Australian Government has introduced a number of initiatives to ensure Australia has the agricultural workforce it needs now and into the future (please note that none of these initiatives provide government payments to farmers):

- creating the Australian agriculture worker visa to provide Australian agriculture a wider pool of workers to help to meet workforce gaps
- providing visa extensions and additional flexibility to encourage temporary visa holders already in Australia to work in agriculture
- reopening Pacific labour mobility schemes (following closure during the COVID-19 pandemic) that have been critical to meeting immediate needs
- delivering an Agriculture Workers Code to facilitate the movement of workers between Australia’s states and territories
- committing A\$29.8 million (US\$22.4 million) to help the agriculture sector modernise its practices and image to better reflect the dynamic, innovative and resilient industry it is today
- encouraging Australians and young people to take up farm work by providing relocation assistance.

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<sup>5</sup> Based on 2020-21 currency conversion of A\$1 being equivalent to US\$0.747

<sup>6</sup> The Australian agriculture, fisheries and forestry sector aims to achieve A\$100 billion in farm gate output by 2030. Refer: <https://www.agriculture.gov.au/ag-farm-food/ag2030>

## **Cotton challenges: finding smart and sustainable solutions**

### ***Role of the Public Sector in the cotton industry***

The Australian Government and cotton producers co-invest in cotton research, development, and extension (RD&E) through the Cotton Research and Development Corporation (CRDC) to deliver outcomes to benefit Australia's dynamic cotton industry and the wider community.

CRDC is funded through a research and development levy, which all growers pay. The levy equates to A\$2.25 (US\$1.70) for each 227 kilogram bale of cotton; or A\$4.06 (US\$3.06) per tonne of exported seed cotton, with the Government matching the funds dollar-for-dollar up to 0.5% of the cotton industry's gross value of production.

CRDC is currently working with its sister commodity Research and Development Corporations (RDCs, e.g. grains, beef, wool, sugar etc.) on a climate initiative, which will be a significant new co-investment program to foster thriving agriculture, fisheries and forestry industries regardless of pressures from a variable and changing climate. The initiative aims to focus investment in science and innovation at a grand scale to deliver research projects that improve the resilience of Australian agriculture to the effects of climate.

The RDC Climate Initiative has a singular focus on identifying the best ideas for transformative change that are the most desirable, the most technically feasible and the most economically viable. It will bring together the collective capacity of RDCs in a way that also is attractive for private and government investment. It will change the way the government, industry organisations and private sector work together to seize the most prospective investment opportunities.

### ***Improving water efficiencies in the cotton industry***

From 1992 to 2019, there has been a 97% increase in the bales of cotton grown per megalitre of water (effective rain and irrigation). This equates to a 48% decrease in water required per bale of cotton. Improved water efficiencies have been achieved using a range of farming practices and development of new cotton varieties, as well as advances in water infrastructure and monitoring technologies.

Cotton farmers continue to employ techniques and measures to improve their water use efficiency, for example using canopy temperature sensors, soil moisture probes, sophisticated weather forecasting software ahead of planting, and other technologies. They also apply physical measures such as improving irrigation systems, regular laser-levelling of fields to maintain irrigation application efficiency, and applying mulching and stubble to help retain soil moisture.

The Australian cotton industry's environmental management program – *myBMP* (Best Management Practices) – includes a water management module covering water quality, efficiency of storage and distribution for both dryland and irrigated farming practices to improve farming practices and carefully manage natural resources.

### ***Transfer of Technology***

The cotton industry's joint extension program, CottonInfo, plays an important role in transferring research and development knowledge to the industry. Formed in 2012 by CRDC, Cotton Australia and Cotton Seed Distributors Ltd, the extension program is designed to improve research and development communication, improve industry responsiveness, and improve industry practices.

### ***Cotton to Market Strategy***

The world's leading brands and retailers are increasingly demanding traceable fibres produced using more responsible and sustainable methods.

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Cotton Australia is involved in several cotton programs that promote and encourage responsible and sustainable cotton production and give Australian cotton a strong position in the world fibre market. These include *myBMP* the Better Cotton Initiative (BCI), the Cotton LEADS™ program, the PLANET. PEOPLE. PADDOCK sustainability framework and Cotton Australia's supply chain marketing strategy.

*myBMP* is the Australian industry's voluntary farm and environmental management system and certification program that allows growers to identify and compare their practices with regulations, and industry best practice and standards. The system has 10 key modules including Human Resources and Work Health and Safety, Water Management, and Soil Health. In 2020, a total of 93 businesses and 280 farms were *myBMP* accredited representing 25% of the crop.

Cotton Australia manages the industry's relationship with BCI, a global sustainability program focused on farm level improvements; *myBMP* certification standards more than exceed the requirements of BCI. By opting into BCI, Australian growers have access to premium markets for cotton grown on *myBMP* certified farms. BCI presents an opportunity to leverage the Australian industry's significant investment in sustainability. In the 2020-21 cotton season, 83,000 metric tonnes of Australian produced BCI cotton was exported.

The Cotton LEADS™ program, a partnership between the Australian and United States of America cotton industries, promotes the supply and use of responsibly produced cotton through national and international efforts. In 2020, the number of Cotton LEADS™ partners rose to 659, of which five are Australian, with representation across brands, retailers, and manufacturers from 35 countries around the world. Several iconic global brands are now including Cotton LEADS™ cotton as part of their sustainable sourcing strategies. Participation in this program is giving Australian cotton access to these important customers.

Through the Cotton to Market strategy, Cotton Australia is also directly partnering with brands and retailers that are making Australian cotton part of their sustainable raw materials portfolios. Several of these partnerships have developed into sustainability projects that, for example are using funds raised from the sale of Australian cotton products to fund biodiversity work in cotton landscapes. An innovative trial is also being run to return shredded cotton products at their end of life to cotton fields in an attempt to find both a soil health benefit and a scalable solution to cotton textile waste.

Cotton Australia will continue to provide feedback and create alignment between customers and industry on issues including sustainable cotton production, transparency and traceability, supply chain disruptions and human rights in order to position the industry well for the future.