

— THE —
**POCKET GUIDE
TO
AUSTRALIAN
COTTON**



**COTTON
AUSTRALIA**

cottonaustralia.com.au





OUR AUSTRALIAN COTTON INDUSTRY

Cotton plays a significant role in our everyday lives.

We sleep in cotton, dry ourselves with it, wrap our bodies in it, and we even cook with its oil.

The Australian cotton industry has a rich history.

The modern cotton industry emerged in the 1960s, and has evolved into one of Australia's agricultural success stories.

Over the decades, we have innovatively transformed our practices to be one of the world's leading cotton industries - efficient, responsible, sustainable, and modern.

In an average year, Australian farmers grow enough cotton to clothe half a billion people around the world, including jeans, t-shirts, jocks, and socks.

We produce some of the world's highest quality, highest yielding cotton, using fewer natural resources than ever before.



Australian cotton is carefully grown, for you.

TODAY



AN AVERAGE
AUSSIE COTTON
FARM:



**Is family owned
and operated**



**Directly creates jobs for
nine people** and contributes to
its local rural and
regional economy

Grows about
500
hectares



of cotton in summer,
but also produces
other crops like wheat,
sorghum, soybeans,
and canola

Irrigates & can
now grow nearly
454kg
of cotton

that's two bales per
megalitre of water
and almost double
the industry average
of a decade ago



Is one of about

1,500 farms that grow
cotton in Australia



66%
in NSW



33%
in QLD

AN AVERAGE
AUSSIE COTTON
FARM:



Is run by farmers with
an average age of

47 years

Grows an average of

11
cotton bales
per hectare – more
than three times the
global average



Uses

30%
less land

to produce one tonne
of cotton lint compared
to 15 years ago

Includes natural
areas, such as native
vegetation, unfarmed
areas, and riparian zones,
ranging from between

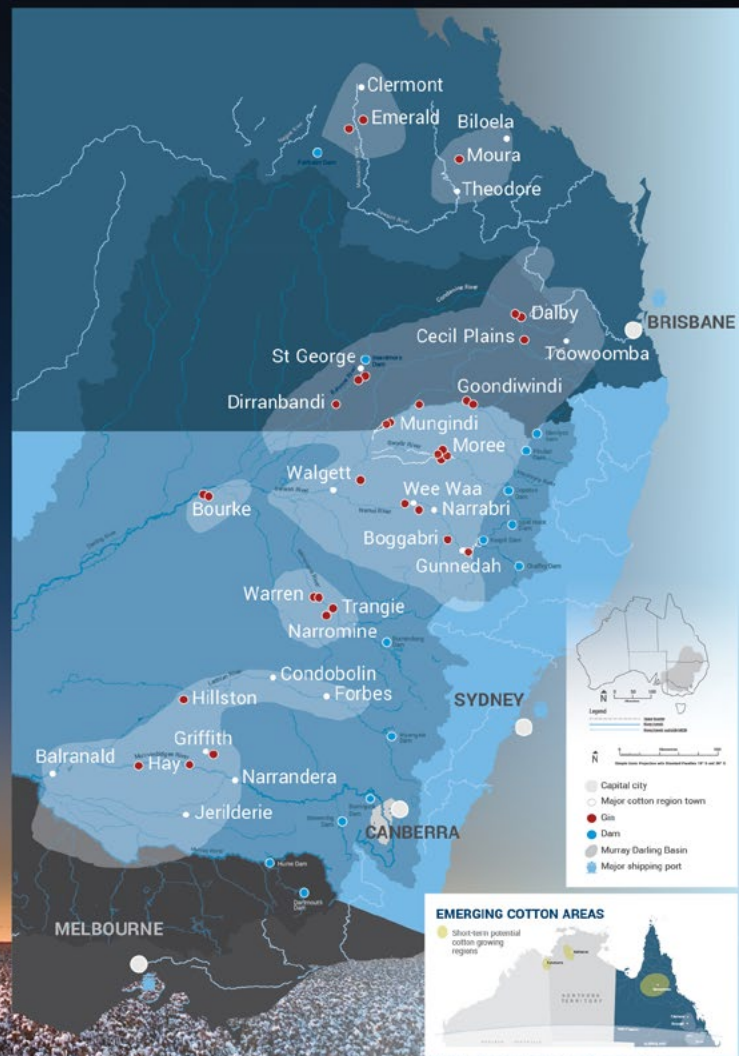
10%-40%
**of the total
farm area.**



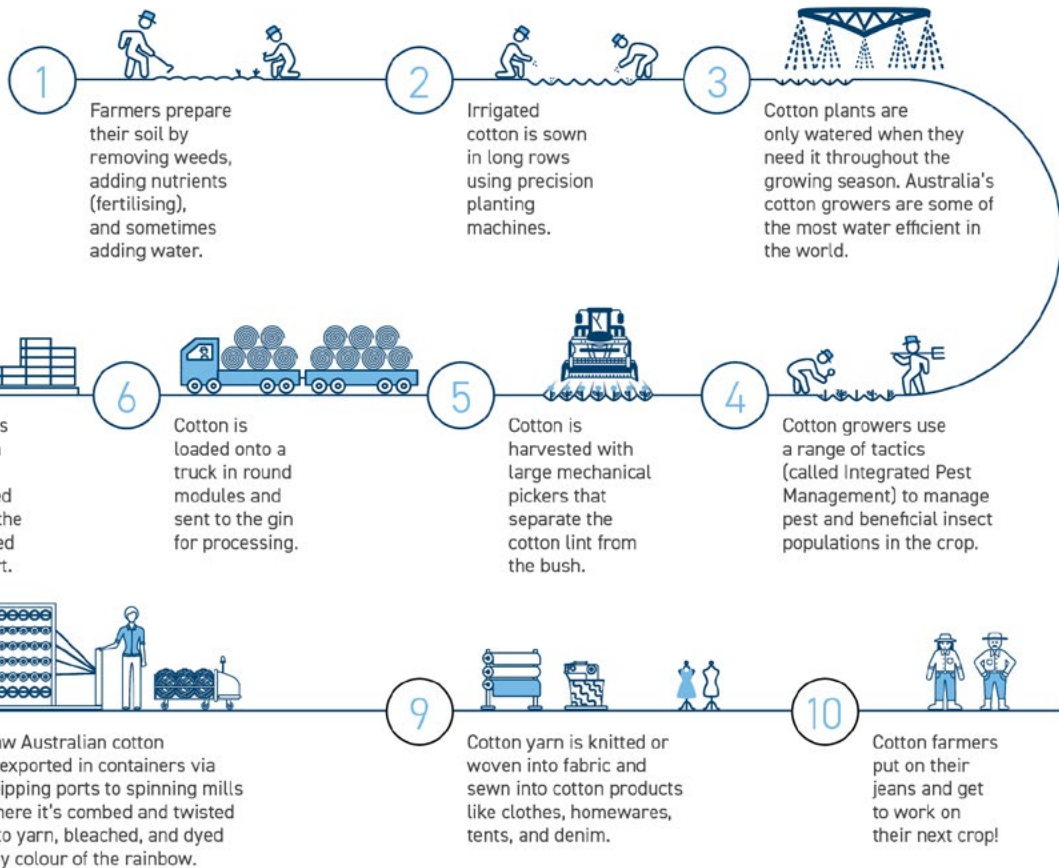
**Grows cotton that
is in high demand**

due to its premium quality, reliability,
and has a proven track record in meeting
manufacturer and consumer needs

WHERE AUSTRALIAN COTTON IS GROWN



COTTON PRODUCTION CYCLE



AUSTRALIAN COTTON GROWING CALENDAR



Cotton Grower's Seasonal Tasks

Australia's cotton growing season lasts approximately six months, however, when cotton is planted and picked differs depending on the region.



Soil Preparation

- » Soil prepared for planting, weeds removed, nutrients added if necessary.
- » Soil moisture levels checked, pre-watering undertaken if necessary.



Planting

- » Soil temperature checked.
- » Cotton seed planted when soil is warm enough for satisfactory seed germination and crop establishment (i.e. soil temperature reaches 14°C at a depth of 10cm and is rising in temperature for at least three successive days).



Growing Season

- » Flower buds develop a few weeks after the plant starts to grow, then flowers appear a few weeks later. The flowers then fall off, leaving a ripening seed pod that becomes the cotton boll (the fruit).

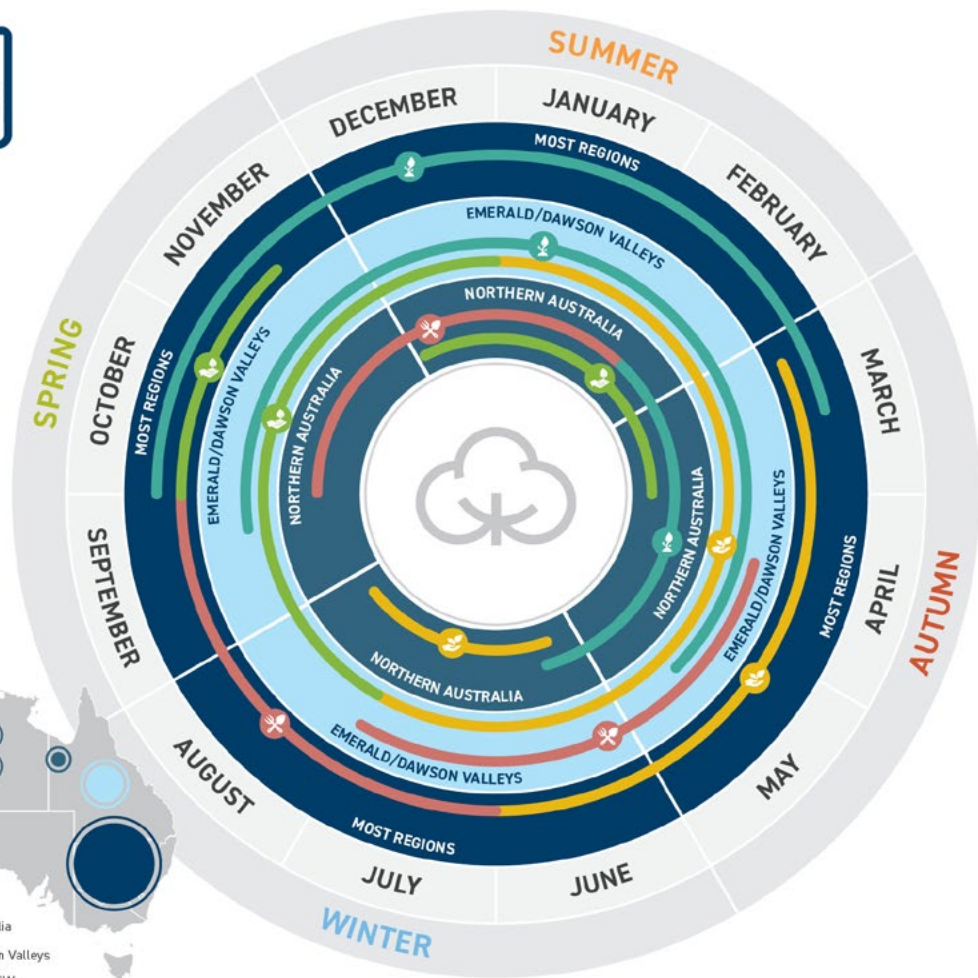


Picking

- » Defoliation is carried out to remove the plant's leaves and to crack the bolls open.
- » Growers harvest the cotton crop using a picker once most bolls have opened and fully matured.



- Northern Australia
- Emerald/Dawson Valleys
- Most regions (NSW, Southern QLD, Northern VIC)



PRODUCTS AND USES OF AUSTRALIAN COTTON



One 227kg bale

of Australian cotton can produce one of these:



2100 PAIRS OF
BOXER SHORTS



3000
NAPPIES



215 PAIRS OF
JEANS



1200
T-SHIRTS



4300 PAIRS
OF SOCKS



250 SINGLE
BED SHEETS

Other products made from cotton lint:



TARPAULINS



TENTS



HOTEL SHEETS



MILITARY UNIFORMS



FISHNETS



COFFEE FILTERS



BOOK BINDING



ARCHIVAL PAPER

Products made of cotton linters (the very short fibres that remain on cottonseed after ginning):



BANDAGES



SWABS



COTTON BUDS



X-RAYS

Cotton - part of the fashion circular economy:



NATURAL



BIODEGRADABLE



RECYCLABLE



RE-USABLE

WATER USE

Australia's cotton industry is considered the most water-efficient in the world.

Australian irrigated lint yields are now the highest of any major cotton producing country in the world, being about three times more than the world average.

This, combined with appropriate varieties, a massive research effort, use of the latest technologies and cutting-edge farm practices, means Australian cotton growers produce more crop per drop than any other cotton-producing country.

48%

The Australian cotton industry has achieved a 48% increase in water productivity over the past decade.*

96%

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

70%

of farmers use soil moisture probes, up from 40% in 2006.



*Source: Australian Cotton Sustainability Report 2019



Water efficiency Australian cotton's average irrigation requirement is 6-7 megalitres per hectare. Since 1992, water use productivity by Australian cotton growers has improved by 48%.



Cotton is only planted when sufficient water is made available from rivers and groundwater sources through government regulated water licensing schemes. When there's no water, there's no cotton.



The CSIRO breeds appropriate cotton varieties for Australian conditions and each grower selects the best and most efficient variety for their region and farm.



On-farm practices Once cotton is planted, growers make careful and considered decisions about the way they manage their water resources.



The Australian Cotton Sustainability Report 2019 showed that cotton growers use a range of techniques to constantly improve water use efficiency. Examples include the use of technology to measure soil moisture, such as probes, on-farm weather stations, and precision irrigation monitoring, so crops are only watered when they need it.



SUSTAINABILITY AND BEST PRACTICE

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.



TODAY, PRODUCING A BALE OF COTTON TAKES:



48%
less water



34%
less land



97%
less insecticides

SINCE 1992



myBMP (Best Management Practices) is a farm and environmental management program for cotton growers, to ensure Australian cotton is produced according to best practice.



The program has seen widespread adoption across the industry, and **myBMP** allows growers and industry to access the latest technical data and research, find solutions to challenges, and provides practical tools to help growers operate at maximum efficiency.



Some of the **myBMP** program's benefits include developing safer farm workplaces and healthier natural environments, reducing input costs, ensuring farm businesses are better run, and improving community health.



The **myBMP** program also assists cotton growers in keeping pesticide use to a minimum, controlling weeds and diseases, maximising water use efficiency, improving soil health, and protecting and retaining native animals and vegetation.



BIOTECHNOLOGY, PESTS AND COTTON

Biotechnology refers to the use of cotton varieties with transgenic or genetically modified (GM) traits. Over the past two decades, Australian cotton growers have rapidly adopted GM cotton, and today more than 99.9% of Australia's cotton crop is grown with varieties containing biotech traits.

Most of the yield gains in Australian cotton are attributed to plant breeding and improved seed technologies. At the same time, the use of biotechnology in cotton has made a significant contribution to the dramatic reduction in insecticides applied to Australian cotton crops.

Since 1992, the Australian cotton industry has achieved a 97% reduction in insecticide use. Cotton growers use a range of tactics (called Integrated Pest Management) to manage pest and beneficial insect populations in the crop, with some cotton crops not sprayed for pests at all. More than 100 different types of pests can attack cotton. If these 'bad bugs' are left unmanaged, the crop can be damaged and a grower can experience yield and quality losses in their crop.



SCIENCE, TECHNOLOGY AND INNOVATION

Australian cotton growers, in a partnership with the Australian Government, invest \$2.25 per bale of cotton they produce each year into research that has delivered significant benefits to growers, rural communities and Australia. The cotton research and development effort is largely driven by cotton growers.

This research investment underpins the Australian cotton industry, and the industry is recognised as a world leader in the adoption of technology, innovation, environmental management, and the production of high quality, high yielding cotton.



AUSTRALIAN COTTON GROWERS ARE THE
MOST SOPHISTICATED IN THE WORLD



70%

of growers use soil
moisture probes,
the highest rate
amongst all Australian
agricultural industries



93%

use integrated
pest management
(IPM) strategies &
farm practices



90%

use satellite
navigation systems
in tractors



82%

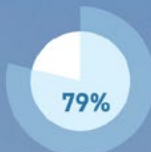
of growers use
efficient round
module pickers



COTTON COMMUNITIES

The cotton industry is very important to Australia's rural communities.

A snapshot of Australia's cotton industry shows:



Cotton growers spend, on average, **79%** of expenses in their local area.

The majority of cotton business expenses are spent within the immediate local areas of farm businesses, and adjacent regional centres.

In a normal year, the industry provides work for more than

12,000 employees.

The Australian cotton industry provides direct support to more than

4,000 businesses.



When times are good, and there is plenty of water in the rivers, cotton helps these communities prosper.



But when drought sets in and there is no water for cotton (or any other crop), these towns suffer and can take a long time to recover.

Cotton represents between **30% & 60%**



of the gross value of the agricultural production in regions where it is grown.

The Australian cotton industry generates up to



\$3 billion

per year in export earnings.

Most cotton growers (nine out of 10*)



regularly contribute to community activities such as events, sponsorships and charities, or are involved in local groups or sports teams.

*according to an industry survey

Cotton is grown in more than

150 regional communities

across NSW, Queensland and small areas of Victoria, northern Queensland, northern Western Australia, and the Northern Territory.





COTTON CAREERS



POLICIES **P** Policy officer (biosecurity, energy, sustainability, water, workforce)

EDUCATION & TRAINING **E** Teacher, Lecturer, Event coordinator, Farm skills provider, Resource content writer, App developer

RESEARCH **R** Scientists/Researchers in: Entomology, Agronomy, Breeding, Soils, Pathology, Weeds, Water Use Efficiency, Irrigation, Environment

FARMING AND FINANCE **F** Farm manager, Accountant, Farmhand, Yard supervisor, Irrigation manager, Cotton marketing (sales)

EXTENSION AND ADVISORY SERVICES **E** Agronomist, Crop consultant, Landcare officer, Workplace health & safety officer, Bug checker

COMMUNICATION **C** Digital content producer, Public relations, Marketing (industry), Journalist

TECHNOLOGIES AND TRADE **T** Agricultural engineer, Machinery operator (driver, harvest contractor, drone/plane pilot), Mechanical trades, Cotton gin worker, Fashion designer, Cotton classifier, IT, Warehouse manager

COTTON FACTS



There are

43 species

of cotton in the world, and some cotton grows on trees.



Cotton is known for its versatility, performance and natural comfort.



Cotton can absorb up to

27 times

its own weight in water.

Cotton and its by-products are used in the production of a huge range of items, including **some bank notes, margarine, rubber, and medical supplies.**



Cotton is a unique crop in that it is both a food and fibre



we cook with cottonseed oil that's flavourless and low in cholesterol.





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