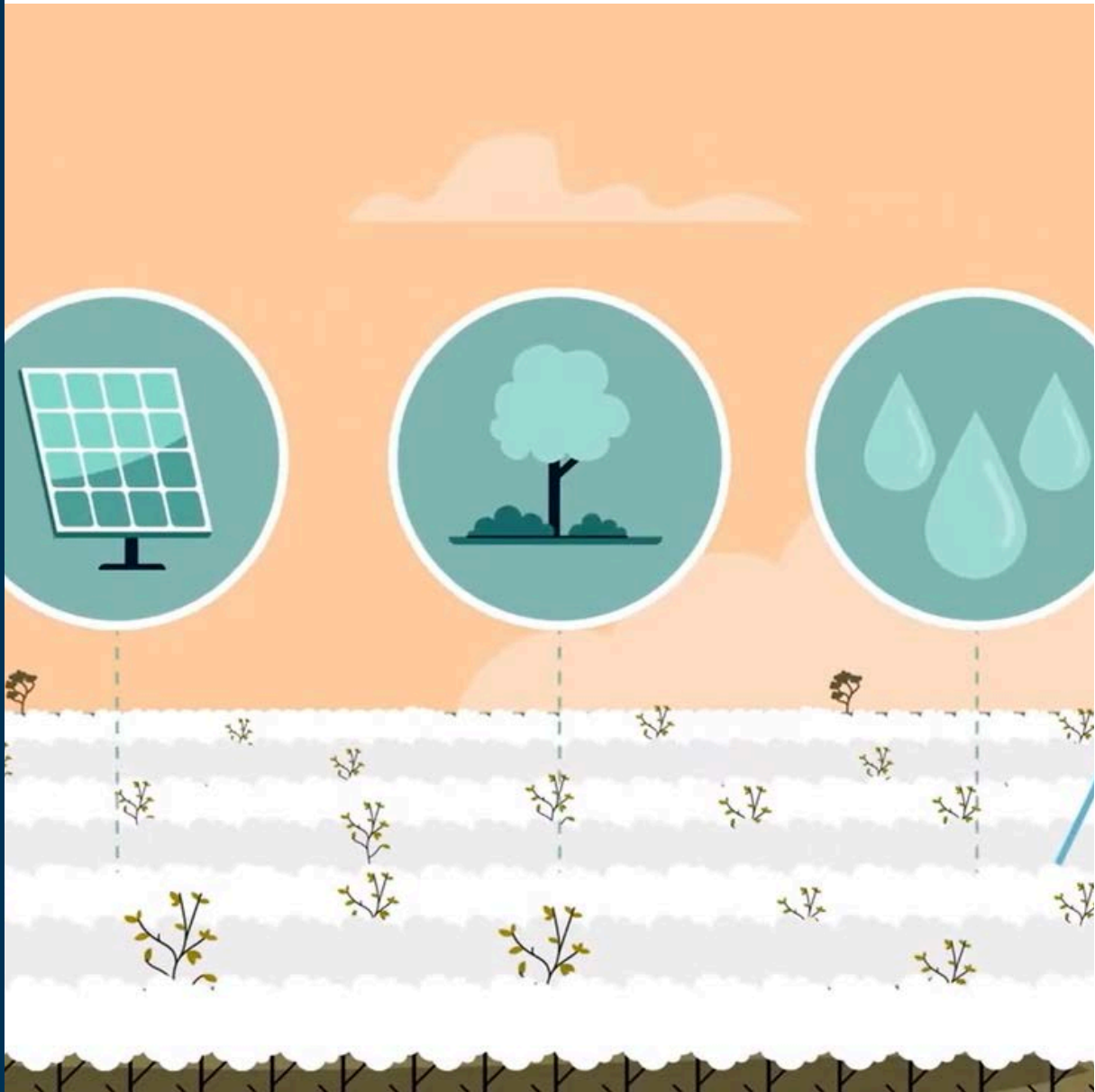


# Sustainable Practices

## myBMP



**Lesson & Activity Guide**  
**Years 7 to 10**  
**Design and Technologies,**  
**and Science**

# Sustainable Practices - myBMP Overview



## Lesson Objective

Students learn about sustainability principles, focusing on the Australian cotton industry, by identifying actions promoting sustainability within their school community and analysing sustainable initiatives.

Through multimedia resources and structured research, students will engage with Best Management Practices (BMPs), evaluate their practical applications, and design a brochure showcasing the Australian cotton industry's commitment to long-term viability and environmental stewardship.

## Lesson Overview

**Activity 2.1 - Introduction to Sustainability in Agriculture and the Australian Cotton Industry** (20 mins)

**Activity 2.2 - Best Management Practices and Sustainability** (20 mins)

**Activity 2.3 - PEOPLE, PLANET, and PADDOCK Sustainability Case Studies** (60 mins)

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## ATTRIBUTION, CREDIT & SHARING



This resource was produced by Primary Industries Education Foundation Australia (PIEFA) in collaboration with Cotton Australia. Primary Industries Education Foundation Australia's resources support and facilitate effective teaching and learning about Australia's food and fibre industries. We are grateful for the support of our industry and member organisations for assisting in our research efforts and providing industry-specific information and imagery to benefit the development and accuracy of this educational resource.



While reasonable efforts have been made to ensure that the contents of this educational resource are factually correct, PIEFA, and Cotton Australia do not accept responsibility for the accuracy or completeness of the contents and shall not be liable for any loss or damage that may be occasioned directly or indirectly from using, or reliance on, the contents of this educational resource.



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# Sustainable Practices - myBMP Overview



## Australian Curriculum Content Years 3-6

### Design and Technologies

- Analyse how people in design and technologies occupations consider ethical and sustainability factors to design and produce products, services and environments (AC9TDE8K01)
- Analyse the impact of innovation and the development of technologies on designed solutions for global preferred futures (AC9TDE8K02)
- Analyse how food and fibre are produced in managed environments and how these can become sustainable (AC9TDE8K04)
- Analyse how people in design and technologies occupations consider ethical, security and sustainability factors to innovate and improve products, services and environments (AC9TDE10K01)

- Analyse the impact of innovation, enterprise and emerging technologies on designed solutions for global preferred futures (AC9TDE10K02)
- Analyse and make judgements on the ethical, secure and sustainable production and marketing of food and fibre enterprises (AC9TDE10K04)

### Science

- Examine how proposed scientific responses to contemporary issues may impact on society and explore ethical, environmental, social and economic considerations (AC9S7H03) (AC9S8H03)
- Investigate how advances in technologies enable advances in science, and how science has contributed to developments in technologies and engineering (AC9S9H02) (AC9S10H02)



# Sustainable Practices - myBMP

## Resources & Equipment

### ACTIVITY 2.1 – Introduction to Sustainability in Agriculture and the Australian Cotton Industry

1. [Explained: Sustainability in the Australian Cotton Industry](#) (1:25)
2. **Worksheet 2.1a – Sustainability and Australian Cotton** (Comprehension activity)
3. Digital devices
4. [PLANET. PEOPLE. PADDOCK. Sustainability Fact Sheet](#)

### ACTIVITY 2.2 – Best Management Practices and Sustainability

1. [myBMP Manager Rick Kowitz Talks myBMP and Best Practice](#) (1:46)
2. **Worksheet 2.2a – Best Management Practices and Australian Cotton** (Comprehension activity)
3. Digital devices, headphones
4. [Cotton Australia | myBMP](#)
5. [Better Cotton](#)

### ACTIVITY 2.3 – PEOPLE, PLANET, and PADDOCK Sustainability Case Studies

1. ['Climate Smart' Cotton Pays Dividends for Moree Farmers in Reducing Carbon Emissions | ABC News](#) (11:14)
2. **Worksheet 2.3a – Sustainable Cotton Case Studies** (Research & Design activity)
3. Digital devices, headphones
4. Scissors
5. **Worksheet 2.3b – Sustainable Cotton Research Scaffold** (Research activity)
6. [Sustainability-Case-Study-Scott-McCalman-v2.pdf](#)
7. [Goondiwindi Circular Cotton Project](#) (2:20)
8. [Spotlight on Cotton R&D](#)
9. [GROWER STORIES](#)
10. [Andrew Watson, Cotton Grower](#) (1:16)
11. [The Biodiversity Project: Meet the Watson Family](#)
12. Digital design software such as Canva or paper and pencils

### OTHER RESOURCES

[A Season At Saunders – YouTube](#)

[WORKPLACE](#)







# Intro to Sustainability in Agriculture and the Australian Cotton Industry

## Lesson Guide for Activity 2.1



**Students will be introduced to the three tiers of sustainability: environmental, social, and economic. They will identify actions promoting sustainability within their school community across these dimensions. Students will understand sustainable initiatives in the Australian cotton industry and evaluate its efforts toward long-term sustainability, fostering a deeper comprehension of the industry's social and environmental responsibilities alongside economic success.**

**a)** Facilitate an exploration of sustainability by writing 'Sustainability' on the board or in a central area and encourage class discussion to define the term collectively. Record student responses. (Answers page 8)

**b)** Introduce the three areas of sustainability: environmental, social, and economic, and emphasise the importance of achieving a balance across all three for long-term sustainability.

**Environmental sustainability** - Practices that conserve natural resources and protect ecosystems now and in the future.

**Social sustainability** - Practices that contribute to the well-being of the community, workers, and society as a whole.

**Economic sustainability** - Practices that maintain profitability and contribute to the financial viability of the industry.

**c)** Encourage students to identify examples of actions they can take at school to promote sustainability across the three areas. (Answers page 8)

**d)** The agricultural industry recognises the need to balance social and environmental responsibility with economic success. View the video [Explained: Sustainability in the Australian Cotton Industry](#) (1:25) to discover the sustainable initiatives Australian cotton growers employ on their farms to produce some of the most sustainably grown cotton in the world.

**e) Distribute Worksheet 2.1a - Sustainability and Australian Cotton** (Comprehension activity) to learn how the Australian cotton industry is working towards improving its long-term sustainability. Students read the information and access the link [PLANET. PEOPLE. PADDOCK. Sustainability Fact Sheet](#), or use the QR code to answer the questions provided.





# Sustainable Practices - myBMP

## Best Management Practices and Sustainability

### Lesson Guide for Activity 2.2



**Students will understand the role of Best Management Practices (BMPs) in promoting sustainability and enhancing efficiency in the Australian cotton industry. They will analyse how BMP adoption benefits cotton growers by reducing environmental impacts and increasing profitability while meeting consumer demands for sustainably produced cotton. Through multimedia resources and a comprehension activity, students will engage with BMP concepts, explore their practical applications, and recognise their importance in achieving long-term viability in agricultural industries such as cotton.**

**a)** Ask students if they are familiar with the term ‘Best Management Practices’. Discuss what they are and why they are used in industry. Best Management Practices (BMPs) are guidelines, techniques, and strategies recognised as highly effective for achieving specific objectives in various industries. They can contribute to the long-term viability of an industry and benefit all stakeholders involved.

**b)** Explain to students that Best Management Practices are adopted in many agricultural industries, such as the Australian cotton industry, to promote sustainable farming methods, improve efficiency, and enhance market access.

By implementing BMPs, cotton growers can minimise environmental impacts, reduce input costs, and increase profitability while meeting growing consumer demands for sustainably produced cotton. Certification under programs like myBMP in the cotton industry also provides growers with industry recognition and access to premium markets, further incentivising adoption.

**c)** View the video [myBMP Manager Rick Kowitz Talks myBMP and Best Practice](#) (1:46) to introduce the Australian cotton industry’s Best Management Practices – a voluntary program for growers known as myBMP.

**d)** Distribute **Worksheet 2.2a – Best Management Practices and Australian Cotton** (Comprehension activity). Students read the information and access the links [Cotton Australia](#) | [myBMP](#) and [Better Cotton](#), or use the QR codes to answer the questions provided. (Answers page 9) Headphones may be required for students to view video content.





# Sustainable Practices - myBMP

## PEOPLE, PLANET, and PADDOCK

### Sustainability Case Studies

#### Lesson Guide for Activity 2.3

Students will learn about sustainability in the Australian cotton industry by examining video and text case studies on several growers in the industry. They will learn about how they are addressing sustainability and the technology they are embracing. Students will use a scaffold to guide their research and design a brochure to educate the public and showcase how the Australian cotton industry is addressing and working towards improving its sustainability.

- View the video '[Climate Smart' Cotton Pays Dividends for Moree Farmers in Reducing Carbon Emissions | ABC News](#) (11:14) as an intro to the sustainability initiatives currently being carried out on a major cotton operation in NSW.
- Allocate students into groups of three and distribute a copy of **Worksheet 2.3a - Sustainable Cotton Case Studies** (Research & Design activity) per group.
- Students choose which group member will research each case study, then cut the worksheet along the lines indicated and retain the appropriate section.
- Students use digital devices and the links or QR codes given to research their chosen case study and complete the scaffold on **Worksheet 2.3b - Sustainable Cotton Research Scaffold** (Research activity). Students will need headphones if a video case study is chosen. *Sources include;*
  - Scott McCalman** Document - <https://cottonaustralia.com.au/assets/general/Sustainability-Case-Study-Scott-McCalman-v2.pdf>
  - Sam Coulton** Video - [Goondiwindi Circular Cotton Project](#) (2:20) Document - <https://www.crdc.com.au/sites/default/files/pdf/Spotlight%20Summer%202023-24.pdf>
  - Graham Volck** Document - [GROWER STORIES](#)
  - Andrew Watson** Video - [Andrew Watson, Cotton Grower](#) (1:16) Document - [The Biodiversity Project: Meet the Watson Family](#)
- Once students have been given sufficient time to research their case study (suggested 30-40 minutes), students reconvene in their groups and share their research findings.
- Students work together in groups to design a brochure that could be displayed at industry events to educate the public and showcase how the Australian cotton industry is addressing and working towards improving its sustainability in the three areas it has focused on: environmental sustainability (**PLANET**), social sustainability (**PEOPLE**), and economic sustainability (**PADDOCK**). Students may design the brochure with digital design such as [Canva](#) or paper and pencils.
- Display completed brochures in the classroom.





# Sustainable Practices - myBMP

## Answers



### ACTIVITY 2.1 – Introduction to Sustainability in Agriculture and the Australian Cotton Industry

**a)** Sustainability addresses the ongoing capacity of Earth to maintain all life. Sustainable patterns of living meet the needs of the present without compromising the ability of future generations to meet their needs (ACARA, 2022). Sustainability can be divided into three areas: environmental, social, and economic sustainability.

**c)** Examples of actions students can take at school to promote sustainability across environmental, social, and economic dimensions:

- **Environmental sustainability:** Initiating or joining a school environmental club that focuses on planting trees, recycling programs, or advocating for reduced energy consumption/solar panels/a school garden.
- **Social sustainability:** Organising or participating in cultural exchange events or awareness campaigns at school that celebrates diversity and inclusivity. Engaging in activities that promote positive social interactions among students, such as organising lunchtime sports matches. Inviting community experts for lunchtime talks etc.
- **Economic sustainability:** Organising or supporting fundraising activities that raise funds for a school initiative and promote local businesses, such as organising a school fair with local businesses as vendors or a cake stall featuring locally sourced ingredients.

### Worksheet 2.1a – Sustainability and Australian Cotton (Comprehension activity)

1. Answers will vary. Some suggested answers:

Environmental Sustainability	Social Sustainability	Economic Sustainability
Turn off lights, computers, and other electronics when not in use to conserve energy.	Support local farmers by buying food at local farmers' markets.	Borrowing books from the library rather than purchasing them.
Taking shorter showers.	Volunteer in the community.	Shop at second hand shops.
Turn off taps to brush your teeth.	Support mental health awareness.	Shop at locally owned businesses.
Use reusable water bottles, lunch boxes, and bags instead of single-use plastic items.	Stand up against bullying at school.	Thinking critically before making purchases and avoiding impulse buying.
Choose products with minimal packaging.	Fundraising for community causes such as education equality.	Budgeting and saving pocket money and wages.





# Sustainable Practices - myBMP

## Answers - continued



2. Answers will vary.

3. Sustainability is about understanding, managing, and being accountable for what's important to the people the Australian cotton industry relies on: customers, growers, and everyone who impacts how the industry operates. It follows that if the industry knows and manages what's important, it is more likely to be successful – now and for future generations.

If this is done well, PLANET. PEOPLE. Paddock. can create value by:

- **Reducing risk:** Being more aware of stakeholder expectations means the industry can better manage risks and opportunities
- **Increasing productivity:** Continuing to do more with less will benefit the environment and grower profitability
- **Growing markets:** Showing evidence of sustainability performance and intent meets increasing customer demands for this information (Cotton Australia, 2020).

4. The sustainability framework is a set of guidelines the cotton industry follows to ensure its operations are environmentally, socially, and economically sustainable. It aims to ensure a balanced and responsible approach to cotton production in Australia.

### **ACTIVITY 2.2 - Best Management Practices and Sustainability**

#### **Worksheet 2.2a - Best Management Practices and Australian Cotton** (Comprehension activity)

1.

1. Access to premium global markets, including the Better Cotton Initiative (BCI).
2. More efficient and more profitable cotton businesses.
3. Safer farm operations and safer workers.
4. Responsible land management.
5. Cutting-edge management practices.

2. Better Cotton is a global sustainability program focused on farm-level improvements that align with myBMP's certification standards. It provides an avenue for Australian cotton growers to access global premium markets.

Cotton from a myBMP-certified farm can be sold to merchants as Better Cotton. Since 2014, many Australian cotton growers have been able to negotiate a premium for their Better Cotton Claim Units (BCCUs), representing a significant economic opportunity to leverage the sustainability investments made on farms.

3. Australian cotton growers must achieve myBMP certification, pay the full Cotton Australia levy, and opt-in to BCI through Cotton Australia to qualify as a BCI grower.

### **ACTIVITY 2.3 - PEOPLE, PLANET, and Paddock Sustainability Case Studies**

Answers will vary.

# Sustainable Practices - myBMP

## References



- ACARA. (2022). Sustainability | V9 Australian Curriculum. V9.Australiancurriculum.edu.au.<https://v9.australiancurriculum.edu.au/teacher-resources/understand-this-cross-curriculum-priority/sustainability>
- ABC News (Australia). (2023, October 11). "Climate smart" cotton pays dividends for Moree farmers in reducing carbon emissions | ABC News. www.youtube.com. <https://www.youtube.com/watch?v=80IkAZ5QWxE>
- Australian Cotton. (n.d.). The Biodiversity Project: Meet the Watson family. Australian Cotton. Retrieved March 18, 2024, from <https://australiancotton.com.au/news/the-biodiversity-project-meet-the-watson-family>
- Canva. (2024). Canva. Canva; Canva. <https://www.canva.com/>
- Cotton Australia. (n.d.-a). Better Cotton. Australian Cotton. <https://australiancotton.com.au/better-cotton>
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- Cotton Australia. (2020). FACT SHEET. <https://www.crdc.com.au/sites/default/files/PLANET.-PEOPLE.-Paddock.-sustainability-fact-sheet.pdf>
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- Cotton Australia, & CRDC. (2021). Sustainability-Case-Study-Graham-Volck\_2021. [https://cottonaustralia.com.au/assets/general/PDF/Sustainability-Case-Study-Graham-Volck\\_2021.pdf](https://cottonaustralia.com.au/assets/general/PDF/Sustainability-Case-Study-Graham-Volck_2021.pdf)
- Spotlight magazine - Summer 2023-24. (2023). Spreading the love: Coultons go full circle. <https://www.crdc.com.au/sites/default/files/pdf/Spotlight%20Summer%202023-24.pdf>







# Sustainability & Australian Cotton

## Student Worksheet 2.1a (1 of 2)



Sustainability is a concept that encompasses the idea of meeting the needs of the present without compromising the ability of future generations to meet their own needs. It involves considering **environmental, social, and economic** factors to create a balanced and enduring system. Sustainability is often applied to various aspects of human activities, such as resource use, development, and lifestyle choices, to ensure a healthy and resilient planet for current and future generations.

1. List some ways you can be environmentally, socially, and economically sustainable at school, home, or in other areas of your life.

<b>Environmental Sustainability</b> 	<b>Social Sustainability</b> 	<b>Economic Sustainability</b> 
<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>

2. Do you think consumers today are more concerned about the sustainability of the products they buy compared to in the past? Why or why not?

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Sustainability in agriculture involves balancing social and environmental responsibility with economic success. The Australian cotton industry is highly focused on sustainability. Producers and other stakeholders in the supply chain recognise that the industry's long-term viability is based on maintaining sustainability across all three areas: environmental, social, and economic.

Sustainability is about understanding, managing, and being accountable for what is important to people. The Australian cotton industry relies on customers, growers, and stakeholders who impact its operations. To achieve its vision of becoming a global leader in sustainable cotton production, the industry has devised a comprehensive sustainability framework known as **PLANET. PEOPLE. PADDOCK.**



# Sustainability & Australian Cotton

## Student Worksheet 2.1a (2 of 2)



Use the **PLANET. PEOPLE. PADDOCK. Sustainability Fact Sheet** to learn about the Australian cotton sustainability framework and answer the questions.

<https://www.crdc.com.au/sites/default/files/PLANET.-PEOPLE.-PADDOCK.-sustainability-fact-sheet.pdf>



3. Explain why agricultural industries such as cotton care about sustainability.

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4. What is a sustainability framework?

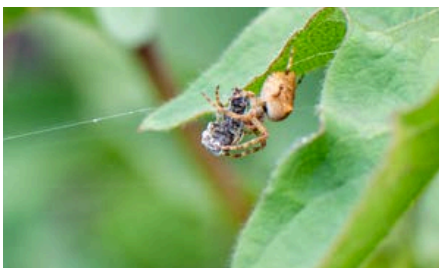
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The **PLANET** component of the Sustainable Australian Cotton framework focuses on the environmental sustainability of water, carbon, biodiversity, and pesticide use within the industry. The **PEOPLE** aspect concentrates on enhancing the social sustainability of quality of work life, well-being, and social capital. The **PADDOCK** aspect focuses on promoting economic sustainability by improving efficiency and profitability throughout the supply chain and for all stakeholders involved.

The Australian cotton industry continues to work towards achieving a balance to ensure the long-term viability of cotton farming in the country.







# Sustainable Practices - myBMP

## Best Management Practices and Australian Cotton

### Student Worksheet 2.2a (1 of 2)



Read the information below and use the [Cotton Australia | myBMP](https://cottonaustralia.com.au/mybmp) resource to learn about the Best Management Practices (BMPs) of Australian cotton producers to enhance their sustainability and open new markets.



Answer the questions below.

<https://cottonaustralia.com.au/mybmp>

Best Management Practices (BMPs) are guidelines, techniques, and strategies recognised as highly effective for achieving specific objectives in various industries. They are developed through research and expert consensus and aim to optimise resource use, minimise environmental impacts, and improve overall performance. By promoting sustainable and responsible management practices, BMPs help balance economic, environmental, and social sustainability for the benefit of current and future generations.



myBMP (Best Management Practices) is a voluntary cotton industry program in Australia that focuses on promoting sustainable and environmentally responsible cotton production. The program is designed to assist cotton growers in implementing best management practices that cover various aspects of cotton farming.

myBMP cotton is grown or produced by farmers who adhere to the guidelines and practices outlined in the myBMP program. These guidelines cover a range of sustainability criteria, including water management, soil health, biodiversity conservation, and the responsible use of inputs such as fertilisers and pesticides.

1. List the top five benefits of myBMP for growers.

- 
- 
- 
- 
-



# Best Management Practices and Australian Cotton Student Worksheet 2.2a (2 of 2)



2. Outline what 'Better Cotton' is.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. What are growers required to do to be able to sell their cotton as Better Cotton?

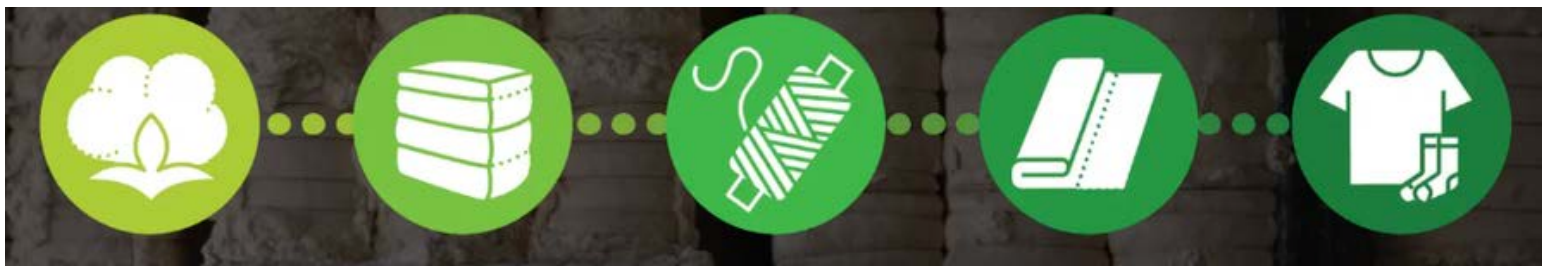
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# Sustainable Student Worksheet 2.2a (2 of 2)



Choose ONE case study for each member of the group. Cut along the lines indicated and retain the appropriate section. Use the links provided to view or read the case study to learn about the sustainable practices and innovations of some Australian cotton producers. Complete the research scaffold on Worksheet 2.3b.

1



## Scott McCalman IMPROVING SOIL HEALTH



- <https://cottonaustralia.com.au/assets/general/Sustainability-Case-Study-Scott-McCalman-v2.pdf>

Mullaley NSW

2



## Sam Coulton CIRCULARITY



- <https://www.youtube.com/watch?v=kGcNLkTuFng> (2:20)
- <https://www.crdc.com.au/sites/default/files/pdf/Spotlight%20Summer%202023-24.pdf> pages 14-17

Goondiwindi, QLD

3



## Graham Volck IMPROVING NITROGEN USE EFFICIENCY



- [https://cottonaustralia.com.au/assets/general/PDF/Sustainability-Case-Study-Graham-Volck\\_2021.pdf](https://cottonaustralia.com.au/assets/general/PDF/Sustainability-Case-Study-Graham-Volck_2021.pdf)

Emerald, QLD

4



## Andrew Watson WATER MANAGEMENT BIODIVERSITY



- <https://www.youtube.com/watch?v=0Lfv5hAISQ0> (1:16)
- <https://australiancotton.com.au/news/the-biodiversity-project-meet-the-watson-family>

Boggabri, NSW



# Sustainable Practices - myBMP

# Sustainable Cotton

# Research Scaffold

## Student Worksheet 2.3b (1 of 2)



**For your chosen case study, complete the research scaffold.**

Name of producer and case study:
----------------------------------

Location:	Sustainability focus: (circle)
Size of operation:	<b>Environmental / PLANET</b> <b>Social / PEOPLE</b> <b>Economic / PADDOCK</b>

Outline the sustainability issue that this grower/business is addressing.
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Outline what this grower/business is doing to improve sustainability.
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# Sustainable Practices - myBMP

# Sustainable Cotton

# Research Scaffold

## Student Worksheet 2.3b (2 of 2)



Why is the grower/business addressing this issue? What is the benefit to them?

What evidence is there that this is 'working'?

Other relevant information:

