

# MEET YOUR COTTON RESEARCHER

Sharna Holman

Development Extension Officer and Researcher, QLD DPI  
and CottonInfo Biosecurity and Disease Technical Lead

## PROFILE

SEPTEMBER 2025

## RESEARCH AREA

### Crop protection

CRDC Research Project

***Future Cotton: natural enemy  
screening***

*July 2025 - June 2029*



### WHAT'S YOUR BACKGROUND?

I was born and raised in Sydney and didn't come from a farming background. My interest in agriculture began at high school, where a 4-hectare farm and inspiring teachers encouraged me to see agriculture as a career path. I went on to complete a Bachelor of Science in Agriculture at the University of Sydney.

### HOW DID YOU END UP IN COTTON RESEARCH?

While studying, I was exposed to the cotton industry through several opportunities, including a Cotton Australia scholarship to attend the 2014 Australian Cotton Conference on the Gold Coast and a CRDC Summer Scholarship, where I undertook a project investigating increased tolerance in *Helicoverpa punctigera* through sublethal Bt exposure with Dr Mary Whitehouse (formerly CSIRO) at ACRI, Narrabri. Upon graduating from university, I moved to Emerald to take up a role as a Development Extension Officer with QDPI. This role eventually led me to being based in Toowoomba, where I contributed to a range of CRDC-funded projects and had the opportunity to complete my PhD. My research focused on *Spodoptera litura* (cluster caterpillar) in Bollgard 3 cotton crops in northern Australia, splitting my time between Kununurra and Toowoomba.



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## TELL US A BIT ABOUT YOUR RESEARCH PROJECT ...

In the QDPI Future Cotton project, I lead the natural enemy screening research, assessing the toxicity of current and new insecticides to key natural enemies found in Australian cotton crops. My research focuses on their impact on key natural enemy groups — including beetles, bugs, lacewings, and wasps — to better understand and support beneficial insect populations in Australian cotton systems. I am also the CottonInfo Biosecurity and Disease Technical Lead, coordinating and delivering biosecurity and disease extension material to support growers and the wider cotton industry.

## HOW WILL THE RESEARCH BENEFIT GROWERS + INDUSTRY?

This work helps provide Australian growers and consultants with the information they need to make informed insecticide choices that conserve natural enemy populations and support sustainable pest management. It also supports the cotton industry as a whole by promoting more sustainable and integrated pest management practices. but also strengthens the industry's environmental credentials and long-term sustainability, ensuring cotton remains a responsible and competitive fibre on the global market.

## WHAT EXCITES YOU ABOUT WORKING IN THE COTTON INDUSTRY?

What excites me most about the cotton industry is the enthusiasm that runs through every part of it. Growers and consultants share a genuine passion for research and a strong desire for knowledge that can improve profitability, productivity, and sustainability. It's incredibly motivating to know that the research you undertake has the potential to be adopted on farms across the country, meaningfully influencing on-farm decisions and contributing to the industry's goals.

## WHAT DO YOU LIKE TO DO WHEN YOU AREN'T RESEARCHING?

When I'm not researching, I enjoy exploring different restaurants and bars around Toowoomba and working on home renovations — though I can safely say I won't be a contestant on the next season of *The Block*!

For further information:

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