



TRAVEL, CONFERENCE or SCIENTIFIC EXCHANGE REPORT

Part 1 - Summary Details

CRDC Project Number: DANT 10567

Project Title: Travel: Attend the 2024 Australian Cotton Conference - Northern Australia Contingent

Project Commencement Date: 15 May 2024 to 31 August 2024

Recognition of support: The Northern Territory Government Department of Industry Tourism and Trade, acknowledges the financial assistance of the Cotton Research and Development Corporation that enabled Research Agronomist Peter Shotton Attend the 2022 Cotton Conference at Gold Coast.

Part 2 – Contact Details

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Organisation: Department of Industry, Tourism and Trade, Northern Territory Government

Principal Researcher: Staci Stanley

Organisation: Department of Industry, Tourism and Trade, Northern Territory Government

Date Submitted: 2 October 2024

Part 3 – Travel, Conference or Scientific Exchange Report

1. A brief description of the purpose of the travel.

Department of Industry, Tourism and Trade (DITT) of the Northern Territory Government is the lead agency engaged in cotton research, development and extension in the Territory. DITT is currently concluding Cooperative Research Centre for Developing Northern Australia (CRCNA) funded 'Potential for Broadacre Cropping in the Northern Territory' project. Most recently, CRCNA has approved DITT to lead 'Addressing the Basics of Cropping-system for Sustainable Growth of Agriculture Sector in the Northern Territory' project for progressing cotton RD&E in the Territory for next four years. Growing rain-fed cotton has been identified as a high value broadacre cropping option for expanding agriculture in the Northern Territory.

The 2024 Australian Cotton Conference was held in the Gold Coast Queensland, at Gold Coast Convention Centre from 6th to 8th August 2024. Attending the Australian Cotton Conference was an excellent opportunity for DITT team Staci Stanley and Saeedeh Taghadomi-Saberi to engage in cotton RD&E.

Staci, Shah and Simon attendance was sponsored by DITT (CRCNA - Project) and The Cotton Research and Development Corporation (CRDC). The conference presented an opportunity for DITT team to establish networks/connections, exchange information, ideas, and discuss the latest advances from the world of cotton science and production with national and international cotton RD&E stakeholders and learn from their experiences.

2. What were the:

a) major findings and outcomes

Identification of issues being faced by the Northern Territory growers.

1. Establishment of cotton crop
2. Variable soil types
3. Climate
4. Pest and diseases
5. Killing cotton
6. Efficiency to long-life the GM technology of modern cotton varieties. (ie, planting times of cotton and trap crops for monitoring and to avoid resistances.
7. Better use of fertilizers especially Nitrogen.

Emerging innovations which will benefit Northern Cotton Industry.

1. Fertilizer use and management including reducing losses from applications and placement and time of applications.
2. Killing cotton, using chemical and high pressure fluid to "inject" herbicide into the cotton stubble.
3. Cotton breeding for increased yield potential and better pest control
4. Opportunities for carbon farming and reduced Co₂ emissions.
5. Tools and applications to help identify pest and disease thresholds.

b) other highlights

- Meeting and interaction with senior cotton industry researchers session with mentoring opportunities to younger participants interested in rural industries and networking in cotton/research community.
- The session about “what’s going on up north” panel of Northern Australian growers from Queensland, Northern Territory and Western Australia talking about the challenges of growing cotton.
- New ideas learned on the importance of learning from other growers, support agencies, researchers, grower’s groups, best practice groups, field days, paddock walks etc.
- Variable and challenging climate conditions (air and soil temp, and rainfall), industry support, machinery supply and service.
- The importance of IPM and why your trap crop should be grown on your best country.

3. Detail the persons and institutions visited, giving full title, position details, location, duration of visit and purpose of visit to these people/places. (NB:- Please provide full names of institutions, not just acronyms.)

More than 100 guest speakers and a total of 2,700 delegates attended the conference. Alongside the presentations, over 120 trade exhibitors displayed different products and technologies that created an opportunity for delegates to appreciate new inventions in the market and networking over lunch breaks and evening events.

The Cotton Research and Development Corporation held a beneficial lunchtime event whereby senior researchers interacted with participants which included undergraduates from Cotton Australia Scholarship, CRDC Horizon Scholars and CRDC PhD’s.

4. a) Are there any potential areas worth following up as a result of the travel?

Gaining insight into the current issues facing cotton growers in Northern Australia was beneficial in planning future R & D for the northern cotton industry. These issues are listed in 2.a. with a main focus of cotton breeding for increased yield potential and pest control.

b) Any relevance or possible impact on the Australian Cotton Industry?

Improving the northern production of cotton will secure a stronger supply chain for the Australian Cotton Industry so it isn’t wholly dependent on one area/climate for production. This in turn will increase the overall production of cotton which will benefit the Australian Cotton Industry.

5. How do you intend to share the knowledge you have gained with other people in the cotton industry?

Knowledge will be shared to Northern Territory cotton producers and potential cotton producers through face to face meetings, field days, property visits, and reports as well as through current and future research and development.