

Part 1 - Summary Details

CRDC Project Number: CGA1905

CGA:

Project Title: Development Tour for Northern Australia

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Part 2 – Contact Details

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Part 3 – Final Report

Background

Cotton has been looked to be a commercial crop in the Northern Territory on several occasions over the last 100 years, firstly as a wet season crop and more recently (in the last 25 years) as a dry season (winter) crop. The recent success of a hybrid model of crops planted in the wet and finished in the dry at Kununurra and the developments in the Georgetown region of Queensland has reignited interest in growing cotton in the Northern Territory.

A few commercial crops have been planted as well as demonstration crops at Katherine Research Station. The main issue in the Northern Territory is a complete lack of understanding of the cotton production system and to an extent, limited exposure good agricultural practices associated with broadacre farming as there has been limited development of a cropping industry in the Northern Territory.

Objectives

The Projects objectives were to introduce new and potential cotton growers to the best practise methods for cotton from the Southern Queensland and Northern NSW growing regions. With a focus on both dryland and irrigation, with an emphasis on the most suited irrigation methods for the Northern soil and climatic conditions.

Other important factors to be investigated will include crop management, surface water development and the development of a cropping system that has cotton as a cornerstone crop.

These objectives were achieved, with five growers from the Northern Territory and one from the Ord coming on the tour along with two Northern Territory Government officers (DPIR and DENR Water), plus four industry support personnel (Agronomist/consultants) attending the tour and interacting together. There was great discussions and networking within the group but also each day with local cotton growers and support personnel.

The group saw cotton grown (irrigated and dryland) on a wide range of soil types, irrigation systems (centre pivots, lateral moves, trickle and flood – furrow/siphon and various bank less channel designs), from different irrigations sources (on-farm storage, irrigation scheme supply, underground and waste water systems) and in many different crop rotation systems.

The other main objective was to promote the opportunities to grow cotton in the Northern Territory and this was covered not only in each region that was visited through interactions with cotton farmers and the cotton community, but within the group of farmers and especially the NT Government officers that had previously struggled with the potential for cotton (land and water) developments. To see that there are many opportunities for cotton to develop and the open engagement of the whole industry gave great confidence to the future development prospectus.

Methods

In putting the tour together, NT Farmers drew on industry guidance for setting the agenda and getting the most out of the short period. After contacting Bayer, CSD, Louis Dreyfus Company, Queensland Cotton, Vanderfield and several private agronomic contacts, an itinerary was developed. The itinerary was further aided by the contribution of access to Vanderfield's light planes that enabled more visits to be added. The final itinerary is in the table below.

Sunday, 24 February 2019	Arrive Toowoomba		
Monday, 25 February 2019	Goondiwindi	McIntyre Downs	Managed by MCA Ag
	Goondiwindi	South Callandoon	Paul Duddy
	Goondiwindi	Pro Class	Cotton Classing facitity tour
	Goondiwindi	Sapphire Farming and Feedlot	Andrew Slack - Integration of cotton seed in feedstock
Tuesday, 26 February 2019	Chinchilla	Burradoo	Greg and Mary Ann Bender
	Dalby	LDC Gin	Tony Gietz, Cathy Cook, Andrew Cook, Trent Raymond
	Dalby	Simmich Farming	Mick Simmich
Wednesday, 27 February 2019	Dalby	Dalby CGA Farmer of	the Year Field Day at 'One Tree'
	Keytah	Keytah farming and Ginning	Nick Gillingham
	Wee Waa	Cotton Seed Distributors	CSD Board and staff
Thursday, 28 February 2019	Wee Waa	Cotton Seed Distributors	Demonstration Farms and Facilities
	St George	The Anchorage	Paul Brimblecomb
	St George	Saunders Farming	Craig Saunders, Lucas Wuersching and Peter Blokland
Friday, 1 March 2019	St George	Ashwood	Scott and Heather Brimblecomb
·	St George	Moonrocks	Andrew and David Moon
	St George	South West Hay Supplies	Allan & Kerrie Neale
	Toowoomba	PB Agri Foods and Feed Central	Overview of market opportunties
	Toowoomba	Vanderfield Workshop, Cotton industry forum	Technology and industry overview
Saturday, 2 March 2019	Depart Toowoomba	·	

Along with the itinerary to farms and businesses, each night there was a networking event organised where local cotton farmers and support industry could catch up with the Northern

delegation and discuss opportunities. These events were held in Goondiwindi (with assistance of Bayer), Dalby (with assistance of LDC), Wee Waa (as part of CSD yearly CGA update), St George and Toowoomba (with support of Vanderfield).

The final itinerary gave a significant cross section of production methods, including a great cross section of management and irrigation practices. Not focussing on production alone, gave the participants a greatly improved view of the cotton industry and the support available for new entrants to the cotton industry. The contacts, networks and linkages developed both within the group and with the farmers and business contacts made gave great comfort to prospective growers.

The inclusion of whole of industry participants certainly added to opportunity to build a cotton industry in the North.

Outcomes

The outcomes from the tour were that the new and potential cotton growers have a much greater understanding of cotton production systems, the cotton industry, Best Management Practices and a much greater network to call on. This has greatly increased their ability enter the cotton industry and improve their ability to grow and adapt to a new sustainable business venture.

Everyone was able to see and discuss many production systems, understand the cotton supply chain and understand industry issues. Then discuss within the group and with the many industry people on how their business may evolve to include cotton in their production system. The main top-level points that were applicable were:

- 1. Comparison between different types of irrigation systems
- 2. Options for dryland production with focus on stubble retention
- 3. Nutrition applications to match yield
- 4. Use of Consultants and contractors
- 5. Adoption of Best Management Practises
- 6. The inclusiveness of all levels of the cotton industry

At the end of the trip a round table discussion was held on the highlights and learnings from the week on the road. All participants gained a lot from the trip, with some of the lights including ability of breakeven returns from poor climatic conditions for dryland crops, analysis of not only water use efficiency but also power efficiency between different irrigation systems and from the Government members the use of on farm storage of flood events/wet season flow and utilisation across a number of seasons were some of the highlights.

Most important outcome was building of relationships and the understanding that they can learn from each other with the support of the whole industry will give the farmers the confidence to enter the cotton industry.

Since the tour there has been two field days in the Northern Territory where participants have shared their experiences with their peers. Focussing on the inclusiveness of the industry and the support that is given, being like no other industry currently on the horizon the NT. Since the tour and especially around the time of the field days several farmers and industry people met on the trip have met up with the participants (many visiting the farms to see crops or potential land for development) which has continued to develop lasting linkages.

On the 12th of April a group of 10 interested and potential cotton farmers (including those from the tour) met at Tipperary Station to discuss the formation of a NT Cotton Growers' group. Here the tour participants spoke of the inclusiveness of the industry and how the group could share experiences and resources to develop the cotton industry in the Northern

Territory. There was also some discussion on the development of a Northern Australia group. The group will discuss issues with the other Northern growers at the Food Futures Roadshow event in Georgetown (30^{th} April/ 1^{st} May) on how the NT group could work in with a Northern Group to share information and experiences to fast track development of the industry.

The group discussed the pathway options towards the development of a Gin in the NT with a cooperative Gin with the support of a major processor/marketer being the logical development now. To enable the invest in ginning facilities and investor would have to see a commitment for the industry to be heading towards 10,000ha of production.

Conclusion

The development tour for participants was a major success in solidifying cotton as the logical cornerstone crop in the development of a cropping system for the Northern Territory. This type of trip was certainly a first for many of the participants, with so much information coming to the participants each day and over the course of the week. The involvement of the greater cotton industry in the planning of the itinerary for the tour and networking events each evening lifted the profile of the tour and added benefit to the future development of the NT cotton industry by involvement of many people interested in the opportunities in the Northern Territory.

The tour also promoted the opportunities for the cotton industry to expand into the NT, with a number of people that the group came in contact with already visiting the NT to look at opportunities and many more booked in to head to the NT after southern harvest has completed (in time for the NT crops to be closer to maturity).

The tour created strong media interest with TV, radio and paper interviews being conducted and aired both regionally (NT and Southern Queensland) and nationally.

The tour reinforced that there are great opportunities for cotton to expand into the North and that there will be support and systems for new growers to develop the skills required to add cotton as a sustainable and profitable crop to their farming enterprises.

Going forward it will be important to increase the numbers of growers and the spread of geographic areas to continue the momentum that is building for the establishment of a cotton industry in Northern Australia with the volume that can get a gin established.

Leading on from this tour it will be important to maintain momentum and introduce new farmers to the cotton industry and keep the linkages growing. Linkages especially across other Northern productions regions will be very important. The Farmers from this tour have expressed a strong desire to visit Kununurra and many will also be heading to Georgetown for the Food Futures roadshow, as well look to options to look at cotton developments internationally in topical climates (similar to North Northern Territory).

Extension Opportunities

To further promote the development of the cotton industry NT Farmers plans to increase momentum though invitations to existing cotton farmers through CGA's, industry events and the Food Futures Program of roadshows and bi annual conference. NT Farmers offers a service to farmers and support industry to give them an overview as well as specific opportunities (and troubleshooting) in getting established in the NT.

NT Farmers through the Plant Industry Development personnel keeps in regular direct contact with the participants of the project and encourages new farmers to become involved and trial cotton in the coming year. A trip to Kununurra is currently being organised to take place either in late June or Early July, to further develop linkages between the two regions and continue the momentum for developing a viable sustainable cotton industry in the North.

Future projects resulting from this project would include visits to other cotton growing regions in the Northern regions to look at production systems development. There may also be a need and desire to look at tropical production systems elsewhere in the world to find best cropping rotations in lowland tropical environments (between 15th parallels and the equator) like that of the North of the Northern Territory.

The other major project opportunity will be to greatly expand high quality demonstration plantings across the many climatic regions, different soil types and interested farmers of the Northern Territory to assist in the fast tracking to reach critical mass of production for the development of ginning facilities to under pin the sustainability of the industry. To make the demonstration (initial commercial plantings a success) sites a success, growers will need access to a precision planter and good agronomic advice. The modification of MyBMP guidelines may also need to be updated to assist new growers make the best decisions for greenfield developments in the new production regions.

Budget

The budget for accommodation was on track with budgeted amounts. Transport costs were significantly reduced from Budget because Vanderfield assisted the team by providing light planes for transport between locations instead of vehicle hire and fuel. As part of the continual development of Cotton in the NT, we planned to at a visit to the Tipperary Cotton plantings to interested industry and potential growers to coincide with the Katherine and Douglas Daly Field days. A bus was hired to facilitate the visit as part of the continual development of the cotton industry.

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