

Expression of Interest EOI 2019-20

Part 1- General Details

			EOI ID	EOI - 0248		
EOI Title:	Cotton as a participant in a circular economy					
(max 80 char)						
Type of Research	Applied					
Proposed Start Date:	01 July 2019	Proposed Cease Date:	30 June 2022			
Please refer to CRDC's Strategic R&D Plan 2013-2018 for the following.						
CRDC Goal	2. Improve cotton farming sustainability and value chain competitiveness					
CRDC Key Focus Area	2.2 Create higher value uses for cotton					
CRDC Activities	2.2.1 Increased value for Australian cotton					
Please identify the relevant Measure of Success as outlined in the CRDC Strategic R&D Plan.						
CRDC Measure of Success:	Increase in the number of new commercialised products					
Rural and R&D Priorities	Supply Chain and Markets					
Strategic Research Priorities	3c. Maximise the effectiveness of the production value chain from primary to					
	processed food					
CRDC NSRP	7.2 - Advanced manufacturing - Cross-cutting technologies to add value to					
	manufactured products.					
R&D Manager:	Allan Williams	EOI Due Date:	12 Octobe	er 2018		

Part 2 –Expression of Interest Requirements

Issue

There is an increased focus on 'closed loop' supply chains, i.e. a 'circular economy' where used materials are recycled back to be used again per their original function. A circular economy evinces a strong preference for maintaining value, or even increasing the value of the recycled product ('upcycling'), rather than down-cycling (e.g.. use of used clothing as rags). The challenge for cotton is that it might be discriminated against as a raw material given the difficulties associated with recycling it back to textiles (mechanical recycling back to yarn is difficult, and leads to reduced yarn quality; and while chemical recycling for cotton is technically feasible, it is only a 'once-off' technique, i.e. it cannot (with current technology) be continually recycled. Thus the ability to recycle cotton into a high(er) value product once its textile use phase has ended would minimise the potential discrimination against its use as a raw material. Further, successful recycled uses could potentially lead to higher value uses for the raw cotton.

Outcomes:

Cotton can participate in a circular economy supply chain and demand for cotton maintained (inability to recycle cotton is not used as a reason to not use cotton); potential high value uses of (recycled) cotton identified.

Project description:

This project will scope and develop proof of concept for novel uses for recycled cotton that result in a high(er) value product, including an initial feasibility study of the proposed novel uses.

Expected Project and Communication Outputs:

Cotton can describe its participation in the circular economy.

Project Investment:

Year	2019-20	2020-21	2021-22	TOTAL			
Indicative budget (up	\$125,000	\$125,000	\$125,000	\$375,000			
to)							

Part 3 – Selection Criteria

The following selection criteria will be used by the CRDC to assess the full research proposals (FRPs) received for each Expression of Interest.

1. A sound understanding of the nature and importance of the outcome to the Australian cotton industry:

The research applicant must address the Issue, Outcome and Project Description in terms of the CRDC Strategic Plan and demonstrate understanding of the impact on the Australian cotton industry.

- 2. Soundness and clarity of the proposed R&D methods to address project deliverable outcomes: The research applicant must describe how the research methodology employed will enable the project outcomes to be delivered.
- 3. Demonstrated capacity of the nominated researcher/s to provide project coordination, management, monitoring and evaluation for the timely delivery of high quality outputs:

The research applicant must describe the research team's project management skills and experience and may include a recent example of a completed project. They must detail the monitoring and evaluation strategy which should include any steering committees to co-ordinate collaborative research, links with CottonInfo, CGAs, Cotton Australia, etc and any additional reporting outside the 6 monthly Progress Reports.

4. Demonstrated track record, technical knowledge and experience of all key personnel in the research area:

The research applicant must describe the project research team's technical skill and experience relevant to the project and methodologies proposed.

5. A demonstrated capacity to effectively communicate project outcomes to diverse stakeholders within the Australian cotton industry:

The research applicant must describe the communication skills and existing communication channels that the research team use to communicate project outcomes to the Australian cotton industry. The new applicants to the cotton industry should provide an example of industry communication from a recent project.

6. Demonstrated ability of the project team to form productive networks and links to build on national and international research already undertaken in related areas:

The research applicant must describe existing networks that the research team use for collaboration with other researchers and an ability to develop new networks as research knowledge increases.

7. The cost effectiveness of this project including cash and in-kind commitments from the applicants and leverage through domestic or international linkages that are useful if not essential to progress the project:

The research applicant should demonstrate market value and market fairness for the proposed budget and comment on the leverage achieved through collaboration and in-kind support.

8. Project demonstrates collaboration between organisations or research groups:

The research applicant must describe the existing or proposed collaboration with other researchers, research groups or committees and the Australian cotton industry.

For information on how to apply, please refer to: www.crdc.com.au/for-researchers

Please note that while the Cotton Research and Development Corporation (CRDC) has released these expressions of interest, due to ongoing drought conditions and the potential impact on CRDCs forward budget, the Corporation may not be in a position to fully support all of the proposals advertised. CRDC has released the full range of EOIs in an endeavour to remain as flexible and opportunistic as possible. Where CRDC may not be in a position to fully support proposals received, we will work with our valued research partners to identify alternative investment options.