



Expression of Interest EOI 2018-19

Part 1- General Details

		EOI ID	1819-EOI-0144
EOI Title: (max 80 char)	Identifying high value uses for recycled cotton		
Type of Research	Fundamental		
Proposed Start Date:	01/07/2018	Proposed Cease Date:	30/06/2021
<i>Please refer to CRDC's Strategic R&D Plan 2013-2018 for the following.</i>			
CRDC Program	3. Customers		
CRDC Theme	3.3 Competitive Futures		
CRDC Strategy	3.3.2 Facilitating the development of new technologies and systems to improve the competitiveness of Australia cotton.		
<i>Please identify the relevant Measure of Success as outlined in the CRDC Strategic R&D Plan.</i>			
CRDC Measure of Success:	Development of alternative and high value cotton products		
Science and Research Priorities	Advanced Manufacturing (2) cross-cutting technologies that will de-risk, scale up, and add value to Australian manufactured products.	100 %	
Rural R&D Priorities	Advanced technology, to enhance innovation of products, processes and practices across the food and fibre supply chains through technologies such as robotics, digitisation, big data, genetics and precision agriculture;		
R&D Manager:	Allan Williams	EOI Date:	18 August 2017

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; potential high value uses of (recycled) cotton identified.

Project description:
A request for ideas for novel uses for recycled cotton that result in a high(er) value product, including an initial feasibility study of the proposed novel uses

Project Investment:
Budget indicated is maximum available. Where the FRP only seeks to address some of the outcomes, the budget will need to reflect this. Overseas travel is not to be included in FRP budgets unless it directly relates to a project output and is an explicit milestone. Otherwise overseas travel must be made as a separate travel application.

Year	2018-19	2019-20	2020-21	
Indicative budget (up to)	\$ 75,000	\$ 0	\$ 0	

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.

129. 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.

130. 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

131. 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.

132. 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.

133. 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.

134. 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.

135. 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.

136. 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.