

Expression of Interest EOI 2018-19

Part 1- General Details

		EOI ID	1819-EOI-0122	
EOI Title: (max 80 char)	Precise real-time automated cotton irrigation for improved water productivity			
Type of Research	Applied			
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	1. Farmers			
CRDC Theme	1.2 Productive Resource Efficiencies			
CRDC Strategy	1.2.3 Developing new systems and tools to support farm decisionmaking processes.			
<i>Please identify the relevant Measure of Success as outlined in the CRDC Strategic R&D Plan.</i>				
CRDC Measure of Success:	Farmers are able to improve their productivity per hectare of land			
Science and Research Priorities	Food(3i) enhanced food production through: novel technologies, such as sensors, robotics, real-time data systems and traceability, all integrated into the full production chain.	50 %	Soil and Water(3) minimising damage to, and developing solutions for restoration and remediation of, soil, fresh and potable water, urban catchments and marine systems.	50 %
Rural R&D Priorities	Soil, water and managing natural resources, to manage soil health, improve water use efficiency and certainty of supply, sustainably develop new production areas and improve resilience to climate events and impacts;			
R&D Manager:	Jane Trindall	EOI Date:	18 August 2017	

Part 2 –Expression of Interest Requirements

<p>Issue: This project will address remaining challenges for the widespread adoption of automated irrigation in the cotton industry, including the components for a 'market ready' precise automated irrigation system for Australian cotton farms; a capacity building program to increase irrigation engineering capability available to assist growers in the design improvement of pumped pipeline and surface irrigation systems and demonstration and extension of precise autonomous irrigation systems.</p>
<p>Outcomes: 15% of Australian cotton irrigators adopting precision and autonomous irrigation systems resulting in improved water productivity by the Australian cotton industry</p>
<p>Project description: This project will address remaining challenges for the widespread adoption of automated irrigation in the cotton industry. These include a 'market ready' precise automated irrigation system for Australian cotton farms; irrigation engineering capability across Australia, available to assist growers in the design improvement of pumped pipeline and surface irrigation systems; demonstration and extension. It is anticipated this project may require partnerships with the SME and start up community to finalise the 'market ready' precise automated irrigation system for Australian cotton farms. The 'market ready' precise automated irrigation system will integrate the best sensor data via data analytics, software and hardware in a modular form i.e. enabling the precision irrigation components to be used in automated and non-automated irrigated cotton fields. It is anticipated that this project would become part of an application for Rural R&D for Profit Smarter Irrigation Phase 2.</p>

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)	\$ 200,000	\$ 200,000	\$ 200,000	

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.

25. 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.

26. 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

27. 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.

28. 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.

29. 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.

30. 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.

31. 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.

32. 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.