Expression of Interest EOI 2022-23

Part 1- General Details

EOI ID	**2223EOI0342**		
EOI Title: (max 80 char)	**Technology to improve field scouting and decision support**		
Type of Research	Innovation		
Proposed Start Date:	1/07/2022	**Proposed End Date:**	30/06/2025
Please refer to CRDC's Strategic R&D Plan 2018-2023 for the following:			
CRDC Goal	1. Increase productivity and profitability on cotton farms		
CRDC Key Focus Area	1.3 Protection from biotic threats and environmental stresses		
CRDC Outcome	1.3.2 Improved indentification, surveliance and management systems for pests, dieseases and weeds, and environmental stresses		
CRDC Performance Indicator	New management practices and systems are available for growers, consultants and industry		
Rural RD&E Priorities	Biosecurity		
Science and Research Priorities	Food		
R&D Manager	Susan Maas	**FRP Due Date**	13/10/2021

Part 2 –Expression of Interest Requirements

Issue to be addressed and project description:

The ability to accurately measure plant growth, and crop problems such as soil constraints, disease, weeds, and pests, is key to making good agronomic and pest management decisions. For example, management of pests that are mobile and difficult to accurately measure such as mirids, green vegetable bugs and soil pests, is challenging and can result in prophylactic insecticide use to counteract the risk created by this uncertainty. It is increasingly hard to find workforce for agronomy scouting and support, and new approaches to data management and new technologies such as artificial intelligence and machine learning have the potential to automate or augment some crop scouting activities, supporting agronomists and growers through ensuring coverage is maximised, scouting assessments are consistent and accurate and crop management decisions are informed.

This investment will address several key priorities in creating value from on farm data, and the (as-yet) significantly under realised potential of ag tech to support agronomists and growers to gather the necessary data and information to support agronomic and crop protection decision making. It will investigate technologies to automate or augment data collection on crop development, including plant growth and damage, and/or crop protection issues to support and improve crop management decision making. It may consider testing technologies available in other systems, as well as developing new technologies. In addition to development and field testing, this project should incorporate early and ongoing engagement with growers and agronomists to ensure proposed technology solution meets end user needs and is fit for purpose.

Expected project outputs and outcomes:

1. This project will deliver a proof of concept for technology to support in field scouting and decision support.
2. This project will deliver a proof of concept for technology to support scouting and IPM decisions making for mirids, green vegetable bug and/or soil pests.
3. The expected outcome is technology to improve field scouting and decision support will empower growers and agronomists through a data driven approach to optimising crop yield and quality and enable optimisation of inputs for management of biotic and abiotic stresses.

NB Applicants can apply for either general field scouting and decision support or technology specifically for IPM scouting or both.

Project Investment:				
Year	**2022-23**	**2023-24**	**2024-25**	**TOTAL**
Indicative budget (up to)	$290,000	$340,000	$340,000	$970,000

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.

1. **The rationale of the project, how it will support CRDC's Strategic Plan and the potential impacts for the Australian cotton industry and the Australian community.**
   This criterion will be assessed on the soundness of the proposal's understanding of the issues, and the extent to which the project outcomes will address the issues and support CRDC to achieve its measures of success.
2. **Project methodology.**
   This criterion will be assessed on the soundness and clarity of the proposed R&D methods to achieve project deliverables and outcomes.
3. **The skills and capacity of the research team to undertake the project.**
   This criterion will be assessed on the track record, technical knowledge and experience of all key personnel in the research area and the demonstrated capacity of the nominated researcher/s to provide project coordination, management, monitoring and evaluation for the timely delivery of high quality outputs.
4. **The proposed 'Pathway to Impact'.**
   This criterion will be assessed on the appropriateness of the proposed 'Pathway to Impact' and the demonstrated capacity of the project personnel to effectively translate research/project outcomes to on ground actions. Please include the target audience and process for extension/ communication/ commercialisation (as appropriate), as well as any collaboration partners and potential risks. Note that successful FRPs may be requested to develop specific milestones for delivery of project outcomes in collaboration with CottonInfo or CRDC Commercialisation Manager at the outset of the project.
5. **Proposed collaborations for the project and / or the collaborative networks of the project team.**
   This criterion will be assessed on the demonstrated ability of the project personnel to form productive networks to build on national and international research already undertaken in related areas.
6. **How this project is cost effective for the Australian cotton industry, including details of the resources being brought to the project.**
   (This criterion will be assessed on the cost effectiveness of this project including cash and in-kind commitments from the applicants and leverage through domestic or international linkages. Budget including descriptive text will also be assessed as part of this criterion. Max 2,000 character limit including spaces)

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

This EOI is not a guarantee of funding.