

Disease Management in Cotton Farming Systems — a Participatory Action Research Approach to Deliver Solutions



Information Document for Growers, Consultants & Industry

The Initiative

Disease Management in Cotton Farming Systems – a Participatory Action Research Approach to Deliver Solutions

Background

This initiative will be supported via Cotton Seed Distributors (CSD) Richard Williams' Commercial Research Initiative with additional support from the Cotton Research Development Corporation (CRDC) and Crown Analytical Services (CAS). The initiative will run for 3 years and adopts participatory action research. This approach allows for input, decision making and ownership by participants, who are most affected by the outcomes.

A need was highlighted for further disease work around management practices that occur on farm. Many growers and consultants are proactive in trying various management practices on farm and this is an opportunity to create a platform that will capture and validate these practices across the industry.

Utilising Crown Analytical Services, certain disease-causing inoculum can be measured. In particular, this project will be investigating Black Root Rot and Verticillium dahliae. It is important to note that Fusarium oxysporum inoculum cannot be measured yet, however this project will gather data on this disease where possible.

Crown Analytical Services

As leaders of the initiative, Crown Analytical Services (CAS) are responsible for inoculum testing across a wide range of farms in the industry. They will work closely with growers to collect data and diagnose in-field disease issues. The disease monitoring capabilities by CAS are essential in determining the effectiveness of disease management practices on farm.

Project Goals

- To identify which practices can assist with on farm disease management
- Provide the catalyst for further industry research
- Provide the mechanism to test and validate findings from research
- To assess the value and cost of alternative practices across different farming production systems and environments
- Provide a regionally specific platform for research outcomes in relation to disease management
- Closely link with other industry research investment and pass on any management practices identified that may be a catalyst for further investigation









Initiative Outline

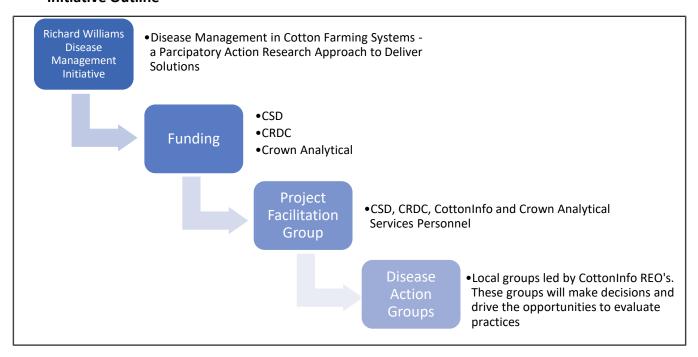


Figure 1. Outline of the initiative

What is the Project Facilitation Group?

The Project Facilitation Group has been formed to oversee the investment and deliver funding on key milestones. This group will consist of CSD, CRDC, CottonInfo and CAS personnel who will assist with facilitation of projects on farm and gathering data from growers.

What is a Disease Action Group and who is involved?

Across many cotton areas, growers, consultants, and other industry personnel have agreed to be part of Disease Action Groups to bring together those proactively involved in combatting disease in their local area. As part of the Disease Management Initiative, we aim to utilise these groups on a local level as a way of reaching out and supporting the work that already occurs on farm and be the catalyst to involve others.

The CottonInfo Regional Extension Officers are the 'local leads' of these Disease Action Groups to assist in the facilitation of meetings and tasks. The REO's will feed information in and out of the group, access and involve researchers where required, as well as assist in keeping on farm trials scientifically valid and on track. We will also be seeking a 'grower lead' for each group to act as a champion and spokesperson for the area, and feedback on this is welcomed.

Members of the CSD Extension and Development team will also provide support to the Disease Action Groups through their skillset and local knowledge. (A complete list of local representatives can be found in Table 1.).









Disease Action Groups

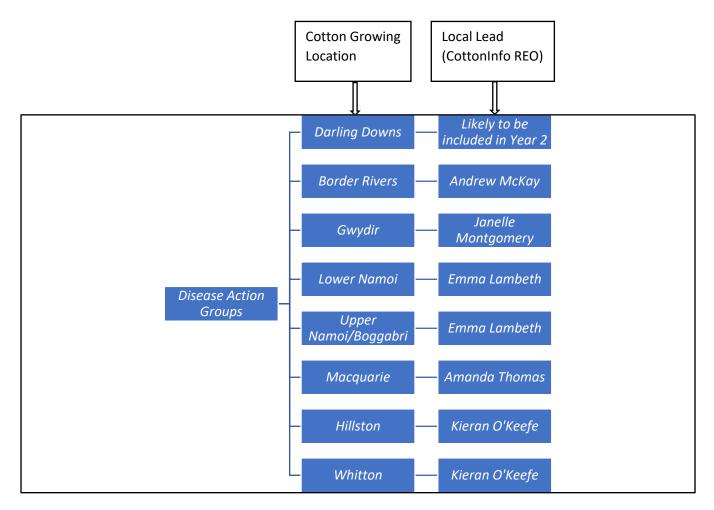


Figure 2. Disease Action Groups

Important note: these areas are not exclusive; we can only hope the initiative grows in interest and funding over the next few years and that we can expand to other cotton growing areas.

Grower Commitments & Data Governance

The participation and commitment of growers is essential to success of this initiative. There will be instances where farm access is required, for example CAS undertaking testing or CottonInfo and CSD showcasing trial sites. Gathering historical data will also be crucial to accurately assess on farm trials and growers will be asked to produce this information related to their fields/crops. For example, yield data, NDVI imagery or rotation history. This information will be collated and analysed anonymously and used to promote positive management practices to the industry. Over the life of this project third party advisors may be sought out to assist in analysing and overlaying spatial data from grower fields.

To ensure the confidentiality of collected data, growers will be required to sign an agreement upon commencement of this project via CSD's Trials Agreement. This will protect both participants and CSD; and ensure that confidentiality and anonymity are recognised and held in high priority.









Table 1. Local representatives

Location	Representative	Contact Information
Darling Downs	TBC	TBC
Border Rivers	Andrew McKay	0407 992 495
	(CottonInfo)	andrew.mckay@cottoninfo.net.au
	Angus Marshall	0428 950 054
	(CSD)	amarshall@csd.net.au
Gwydir	Janelle Montgomery	0428 640 990
	(CottonInfo)	janelle.montgomery@cottoninfo.net.au
	Stuart McFadyen	0428 950 005
	(CSD)	stuartm@csd.net.au
Namoi	Emma Lambeth	0455 525 155
	(CottonInfo)	emma.lambeth@cottoninfo.net.au
	Bob Ford	0428 950 015
	(CSD)	bford@csd.net.au
Macquarie	Amanda Thomas	0417 226 411
	(CottonInfo)	amanda.thomas@cottoninfo.net.au
	Craig McDonald	0484 513 566
	(CSD)	cmcdonald@csd.net.au
Southern	Kieran O'Keeffe	0427 207 406
	(CottonInfo)	kieran.okeeffe@cottoninfo.net.au
	Jorian Millyard	0428 950 009
	(CSD)	jmillyard@csd.net.au

Table 2. Important Contacts

Company	Representative	Contact Information
Cotton Seed	Dr Michael Bange	0428 991 540
Distributors		mbange@csd.net.au
Crown Analytical	Rob Long	0428 971 751
Services		rob@crownanalytical.com.au
	Jenny Brooks	0437 996 678
		lab@crownanalytical.com.au
Cotton Research and	Elsie Hudson	0456 914 637
Development		elsie.hudson@crdc.com.au
Corporation		



