



**Australian Government**

**Cotton Research and  
Development Corporation**

# **COTTON-X BRIDGING PROGRAM**

## **FINAL REPORT**



# COTTON-X BRIDGING PROGRAM OVERVIEW

The Cotton-X Bridging Program delivered (7+) weeks of tailored support for the top four Rural.XO teams.

Each team identified specific needs they required assistance with, and these were addressed through the following support activities:

- Weekly check-ins with mentoring staff for advice/feedback on progress
- Access to the Cotton-X Slack Account for team and mentor communications
- Access to X-Lab Sydney office facilities (kitchen facilities, printing, internet, stationery etc) (\*FluroSat requested that they work from the X-Lab office 1 day per week)
- Strategy design and execution with corporate partnerships and capital raising.



# STATED PROGRAM OBJECTIVES

Help innovators, and by doing so learn how to evolve the culture of CRDC towards entrepreneurial impact.

## Anticipated Value from the program

- Program participants will be exposed to new ways of working entrepreneurially which will change how they work
- Industry partners will see how R&D-, SME- & producer-led innovations are more quickly being tested in the market, lifting the perceived value of CRDC activities
- CRDC will have a new portfolio of projects, which are testing impact and moving toward investment readiness
- CRDC will learn how to use entrepreneurship to evolve its culture towards scalable impact.

## After the program, participants will

- Have a larger trusted network of peers
- Feel comfortable engaging with real customers and testing their ideas BEFORE scaling them
- Feel confident they can assess technical and commercial solutions and risk
- Be clear about their pathways to market
- Have global linkages and partners who can help them scale more efficiently
- Be confident in pitching their startup in front of professional & investor audiences.



# PRE-PROGRAM TEAM NEEDS-ANALYSIS

Each team identified their specific needs and assistance required, as outlined below:

Team Name	Key Contact	Tailored Assistance Requested
NitroCotton	Grace Scott	'Thinking in commercial terms' Negotiation (Azotic in the UK) Commercialisation pathways Commercial proposition development and validation (lean canvas, experiments..)
IN-AG (AgChoice)	Andrew Gill	Technical mentoring Developing and launching an MVP Developing a lean canvas and testing assumptions
AutumnCotton	Rebecca Lindert Glenn Rogan	Commercial acceleration to nail Problem-Solution Fit Solar and Robotics technical validation Assistance connecting to and vetting technology solution providers Exploring IP Protection Regulatory Sandboxes
FluroSat	Anastasia Volkova	Solution-Market Fit Discovery Hiring (Immediate staffing requirements) Paid Pilots (LOI's) Commercialisation Strategy (channel partnerships or direct) Making headway with Cotton farmers in time for cotton harvest in Nov/Dec



# NitroCotton Post-Program Analysis

Assistance requested	What was achieved	Next Steps for NitroCotton	Next Steps for CRDC
<p>Helping a young cotton research scientist think, plan and act in commercial terms from the outset – including commercialisation pathways, value proposition development and market validation using lean startup methodologies.</p>	<p>We coached Grace to explore commercialisation outcomes, understand the options for impact, engage with stakeholders and place extension at the forefront of her R&amp;D planning.</p> <p>*This was one of the most exciting projects we've ever coached, as the potential for NitroCotton to deliver game-changing impacts to the industry is significant. If the bacteria adaptation to Cotton plants is successful, and performance is on par with results from other crops, the benefits are threefold. They include reduction in nitrogen fertiliser inputs that still deliver a notable increase in profitability from cotton farming, whilst reducing adverse environmental impacts from fertiliser overuse, which could attract even more farmers to the Cotton industry.</p>	<p>An exciting plan of R&amp;D with pathways to impact is now in place, with strong confidence that this initiative is headed in the right direction.</p>	<p>CRDC is working on establishing a partnership deal with Azotic (UK)</p> <p>*X-Lab believes that there exists great potential for significant royalties streams from global application of NitroCotton.</p>



# In-Ag\* Post-Program Analysis

Assistance requested	What was achieved	Next Steps for In-Ag	Next Steps for CRDC
<p>Technical mentoring Developing and launching an MVP.</p> <p>Developing a lean canvas and testing assumptions</p>	<p>Coached the In-Ag team to develop an MVP website that was launched as part of the program. A Lean Canvas was also developed and tested through a series of experiments. This led to the discovery of a financially self-sustainable business model. (Andrew initially doubted that it was possible to find pathway towards this being self-sustaining)</p>	<p>Recruitment of a technical Co-founder is required, as progress has stalled due to Andrew's lack of software development skills.</p>	<p>If/when the In-Ag website is out of Beta-mode, Ruth Redfern could help immensely by showcasing it, and CRDC could help to recruit additional RDC's to support and promote the initiative.</p>

\*Formerly known as AgChoice.



# AutumnCotton Post-Program Analysis

Assistance requested	What was achieved	Next Steps for AutumnCotton	Next Steps for CRDC
Commercial acceleration to hit Problem-Solution Fit & “Regulatory Sandbox” to run on-farm trials out of season Exploring IP Protection.	<p>We advised and coached Super Cotton to establish a regulatory sandbox.</p> <p>This was particularly rewarding given SuperCotton (the Rogans) had had many years of unsuccessful attempts. This has allowed SuperCotton to acquire one (1) hectare worth of seed for out-of-season trials.</p> <p>Their initial on-farm trials, have delivered fascinating results.</p>	<p>To gain approval to obtain seeds to enable further experiments on 10 hectares, outside of regular planting season.</p> <p>Many more experiments to come!</p>	<p>Assist the Rogans with obtaining the necessary approvals.</p> <p>Also, assisting the Rogans by coordinating a training program which teaches them how to manage/run scientifically valid on-farm studies themselves, instead of needing to pay a university researcher.</p>



# FluroSat Post-Program Analysis

Assistance requested	What was achieved	Next Steps for FluroSat	Next Steps for CRDC
<ul style="list-style-type: none"><li>• Solution-Market Fit Discovery</li><li>• Hiring (Immediate staffing requirements)</li><li>• Paid Pilots (LOI's)</li><li>• Commercialisation Strategy (Channel partnerships or direct)</li><li>• Making headway with Cotton farmers in time for cotton harvest in Nov/Dec</li></ul>	<p>Mentored Anastasia, focusing predominantly on her requests for assistance with capital raising, culminating in FluroSat successfully raising \$1.5 million from CRDC, CSIRO's Main Sequence Ventures, AirTree Ventures, and a group of strategic investors in the agricultural space.</p>	<p>Efficient and effective utilisation of resources during this scale up phase.</p> <ul style="list-style-type: none"><li>- Further on-farm trials</li><li>- Expansion of their team</li><li>- Investor liaison</li><li>- Partnerships</li><li>- Revenue Generation</li></ul>	<p>To establish an Investment Portfolio Management function, so that CRDC maintains active involvement and helps FluroSat with Cotton industry adoption and taking a watching-brief for the signals that FluroSat is ready for their next investment round.</p>



# KEY TAKEAWAYS

- **Triple bottom line benefits:** NitroCotton and FluroSat have the potential to significantly reduce the use of nitrogen fertiliser within industry, which is truly exciting. Delivering positive impacts on profits, people and planet: these are triple bottom line outcomes.
- **New ways of funding R&D&E:** Return on investment (ROI) from the FluroSat co-investment could be directed to a Donor Company style fund, for reinvested into building a portfolio of strategic investments. This is inspired by the MLA Donor Company model: “co-invest in innovations that will benefit levy payers & industry”.
- **Increasing alternate funding streams:** Royalties from the commercialisation of NitroCotton could help co-fund related CRDC research into the future.
- **Investment Portfolio Advisory:** CRDC and teams need to define a framework for measuring impact and extension success. “To manage it, you need to measure it.”



# THANK YOU



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