COTTON
AUSTRALIA

Advancing Australian Cotton

About Cotton Australia

Cotton Australia is the key grower representative body for the Australian cotton growing industry. It helps the industry work together to be world competitive, sustainable and also tell the good news about the industry's achievements.

Cotton Australia determines and drives the industry's strategic direction, retaining its strong focus on research and development (R&D), promoting the value of the industry, driving stewardship, reporting on environmental credibility, and implementing policy objectives in consultation with its stakeholders. A key responsibility for Cotton Australia is advising the Cotton Research and Development Corporation on industry research and development priorities as the Representative Organisation under the PIERD Act (1989).

Cotton Australia is responsible for a range of industry stewardship matters including; biosecurity, transgenic crop, insecticide and herbicide resistance management and industry development issues. Cotton Australia is the industry member of Plant Health Australia.

Cotton Australia advocates on behalf of producers and is a member of the National Farmers Federation, NSW Irrigators' Council and Queensland Farmers Federation.

Cotton Australia works to ensure an environment conducive to efficient and sustainable cotton production. It has a key role in Best Management Practices (myBMP), an environmental management program for growers. This work has seen a significant improvement in the environmental performance of the industry, with huge improvements in water use efficiency, significant reductions in pesticide use, and millions of dollars invested into R&D.

Cotton Australia members are industry organisations and/or corporations. Virtually all Australia's 800 cotton growers are members of regional Cotton Growers' Associations (CGAs) and all CGAs are members of Cotton Australia. Members' nominated representatives attend general meetings and elect the Directors of the company.

All cotton ginning companies are also members of Cotton Australia. Harvested seed cotton must be processed to produce a saleable commodity (lint and seed). Ginning is the process of separating seed, trash and lint. In this sense the ginners are as essential to cotton growers as refineries are to sugar growers.

The ginning companies have a special place in the inclusive corporate culture of the cotton industry and traditionally all companies operating cotton gins in Australia have been members of Cotton Australia. As explained in detail below, the gins are the point of collection and rebate for industry levies.

In addition to CGAs and ginning company members, Crop Consultants Australia Inc. and Cotton Seed Distributors Ltd. are also members of Cotton Australia recognising the important roles of agronomic advisors and cotton planting seed suppliers in cotton production. The current Cotton Australia Limited members are listed in Appendix A of this submission.

PRODUCTIVITY COMMISSION INQUIRY
INTO THE AUSTRALIAN GOVERNMENT
RESEARCH AND DEVELOPMENT CORPORATIONS MODEL

COTTON AUSTRALIA SUBMISSION – Key Points

- Research, Development and Extension (R,D&E) is an important driver of the rural sector's capacity for innovation, sustainability and strong productivity growth and is critical to maintaining international competitiveness.
- The leverage aspect of the RDC model is very important for both cotton producers and the government and represents a valuable shared funding proposition to advance both government and industry research and adoption priorities.
- The RDC model has continued to evolve since the formal PIERD Act mechanism was introduced in 1989. It is diverse and adaptive in order to meet the needs of individual sectors. The legislative and regulatory processes required to administer and direct the RDCs are adequate and available for the Department (DAFF) and the Minister (MAFF) if required.
- Cotton Australia asserts that the RDC funding provided jointly by growers and government through the PIERD Act model drives industry research leadership and culture that enables significant additional investment in R&D which is amplified through additional public and private investment across the agricultural sector.
- The RDC model is uniquely placed to be attuned to both industry and government priorities in the research investment process. Government priorities are achieved though Departmental (DAFF) involvement in and Ministerial approval of, Strategic Plans and Annual Operation Plans.
- Cotton Australia believes that the RDC model is an effective and efficient mechanism for achieving a range of objectives. The model ensures sufficient capacity within the primary industries sector exists in order to meet community expectations. The co-funding model provides an important driver for attaining engagement, ownership and governance for industry and government.
- The outcome of the RDC Model is an efficient system that has proved (by any number of studies) to be highly effective and well placed to discover innovative solutions to the challenges of the future.
- The Model is increasingly underpinning the scientific expertise that is Australian agriculture's frontline research defense of the productive base that ensures the nation's food security, viable regional communities, environmental stewardship of agricultural lands and an important component of the nations export income.

- The RDCs have a range of expertise at board level and among their staff from industry, science and the community and strong relationships with their investment partners. Government (DAFF) and industry engagement needs to be strengthened to ensure that research priorities remain closely in touch with both government and industry priorities.
- Cotton Australia asserts that the government, through DAFF, could be more actively engaged with their industry partners (representative organisations) in determining the direction and balance of RDC R&D and the evaluation framework to assess and report on progress and impact to industries and the community.
- Cotton Australia believes the global standing of the cotton industry is the result of a strong culture of research investment and adoption. This has delivered sustainable farming practices that drive profitable farm businesses which contribute strongly to the socio-economic viability of regional communities.
- All cotton growers have a vital interest in the research results from CRDC funded projects due to their individual annual levy contributions. The statutory levy enhances the pathway to adoption due to the stake individual producers have in 'their' research.
- The RDCs, have and do, contribute strongly to cross industry initiatives in natural resource use management, biosecurity and environmental stewardship.
- Cotton Australia recommends that the Productivity Commission inquiry consider this important link in the broad sense of the governance arrangements that would enhance the relationship between the 'partners' in the model.
- The CRDC has been instrumental in the funding of R&D that underpins the cotton industry's EMS; myBMP.
- Cotton Australia asserts Australia's world leading cotton yields are a key outcome of the most efficient and effective industry research, development and adoption model in the world. Something the industry is, and the Australian government should be, proud of and that others in the world aspire to.

INTRODUCTION

Cotton Australia welcomes the opportunity to comment on this Productivity Commission review into rural Research and Development Corporations. In this submission we will set out the strengths of the cotton industry's research model, and why the structure and operation of the various industry organisations continues to serve the industry so well.

Over a 20 year time-frame, the Cotton Research and Development Corporation (CRDC) has invested in industry research and its adoption to confront the challenges of a changing farming productivity, profitability, biosecurity and policy landscape.

Since its establishment in the modern Australian farming system, the cotton industry has faced numerous major challenges. There is little doubt that the industry commitment to R&D to inform best practice (through myBMP) has resulted in rapid adoption of more sustainable production management leading to an industry worth $1.5b in gross value of production annually. It is arguable that some of these issues would not have been overcome without an investment in research and development.

In this submission, Cotton Australia will point out why rural R&D is a smart national investment through a valuable government and industry partnership and why it must be enhanced and strengthened for the future.

R&D INVESTMENT BY THE COTTON INDUSTRY

During the establishment phase of the modern cotton industry (from the mid 1960s) the major cotton ginning companies and the planting seed supply (grower owned) company recognised the need to reinvest income from production into research. In 1972 these companies founded the Australian Cotton Growers' Research Association Inc. (ACGRA subsequently merged with Cotton Australia Ltd.) on behalf of all cotton growers and began to collect a voluntary levy (25 cents per bale in 1972) to collect funds to invest in research.

The direct proposal based investment process was undertaken by ACGRA up until the introduction of the Rural Research Councils under DAFF administration in the mid 1980s. ACGRA typically considered proposals for investment from CSIRO, NSW and QLD Departments of Primary Industries on an annual basis. Projects were considered and prioritised by a research committee of grower representatives and administered by direct grant to the research provider.

In 1972 the pioneering cotton growers defined the objects of their research association as follows;

a) Encourage, advance and promote the interests of cotton growers in Australia by research;
b) raise funds from its members from grants or from other sources for the advancement of the Association and its objects;
c) publish distribute and disseminate matter arising out of and connected with the Association and its objects;
d) examine methods by which the Association may attract funds;
e) determine, establish and stipulate guidelines for research.

This recognition of the importance of collective funding to invest in research and extension of research findings firmly established a strong industry value on R&D to inform and define best practice in cotton production.

In 1973 (30/11/1973) representatives of ACGRA met with representatives of the then Australian Government Department of Primary Industries (A. Bennett and D. Dwyer) to promote their proposal for a "legislated joint industry government research fund" involving a 'value proposition' for a matching funding model for the Australian Government. This was an articulated vision for rural R&D funding that would be recognised through the Rural Research Councils a decade later and finally be formalised in legislation through the PIERD Act in 1989.

Examples of direct industry funding for research included; integrated pest management, irrigation scheduling, soil structure management and cotton germplasm development. These early productivity-based research projects delivered considerable increases in yield through the development of locally adapted cultivars and quantum improvements in crop and pest management advice for first generation growers.

In 2006/07 the CRDC research funding of $8.4m was only a subset of the total estimated R&D investment in the cotton industry which has been estimated at $61.6m (BDA, 2008). The industry's successful proposals for three Cooperative Research Centres (CRCs) and additional public and private research is reflective both of the intensive broadacre nature of production but also the important position of the crop as the most agronomically suitable and profitable enterprise for northern irrigated farming systems.

Cotton Australia asserts that the CRDC funding provided jointly by growers and government through the PIERD Act model drives industry research leadership and a culture that enables significant additional investment in R&D which is amplified across the agricultural sector.

A key element of this strong industry R&D culture is the commitment of many individual growers to hosting and/or conducting on farm trials to either directly assist researchers and/or validate research findings in regions and situations where the original research was not conducted. An illustration of the significance of the added producer in-kind can be illustrated through the reporting of cotton grower in-kind contributions to the Cotton Catchment Communities CRC (Cotton CRC) research projects over the last four years in the following table.

Cotton grower in-kind (trial cooperation) contribution* to Cotton Catchment Communities Co-operative Research Centre (Cotton CRC)

Financial year	CRC reported actual	Planted hectares
2005/06	$613,000	333,385
2006/07	$359,000	157,400
2007/08	$522,000	68,585
2008/09	$ 752,000	161,390

* Cotton CRC reports to Department of Innovation, Industry, Science and Research

Given the Cotton CRC research projects are a subset of all on-farm cotton research, the total grower in-kind contribution to cotton R&D is likely to be many times greater than the reported CRC amount. The grower in-kind contribution is also well maintained over time.

Cotton growers' ability to fund and conduct this level of research would be extremely limited without the professional research portfolio management conducted by the CRDC. Many individual producers respond to the CRDC research investment by actively cooperating with industry funded researchers to ensure large and small scale trials are conducted in commercial situations and across different production regions.

THE CURRENT LEVY SYSTEM

The statutory research and development levy, of $2.25 per (227 kg lint) bale, is compulsory for growers to pay at the point of ginning under the Primary Industries (Excise) Levies Act 1999. Levies are collected by the processors (cotton gins), forwarded to the Department of Agriculture Fisheries and Forestry, Levies Revenue Service (LRS) before remittance to the CRDC.

It is voluntary for cotton growers to pay a levy also of $2.25 per bale to Cotton Australia Limited. The Cotton Australia levy is also collected by the processors (cotton gins) and forwarded Cotton Australia; growers may also elect to pay their levy directly to Cotton Australia. Uptake of the voluntary levy for Cotton Australia varies between 70% and 80% (of all bales produced).

The research ($2.25/bale) levy is payable on cotton lint to provide funding for research and development programs administered by the Cotton Research and Development Corporation (CRDC) and plant biosecurity programs via Plant Health Australia (PHA). The Levies Revenue Service (LRS) receives these funds and forwards them to CRDC and PHA, in addition to distributing the Australian Government's matching research and development (R&D) contributions.

The R&D levy is administered by the Australian Government at the request of industry and the levy rate was last amended on 17th December, 2001 when an increase of 50 cents to $2.25 per bale was approved by Senator the Hon. Judith Troeth Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry. This amended rate ($2.25/bale) increased the cotton R&D levy as a percentage of gross value of production from 0.39% to an estimated 0.49% or the level of matched funding under the PIERD Act.

The producer (the person who owns the cotton immediately after harvesting) is liable to pay the levy. Where a producer sells their produce via an intermediary, such as a processor or receiver; the intermediary is liable to pay levies on behalf of the producer. The intermediary must forward the levy to LRS along with return forms which are available from all LRS offices or by accessing the LRS. The intermediary can recover the amount of levy paid from the producer, by offset or otherwise.

However, for various reasons outlined below, it would not be correct to assume that the CRDC levy would necessarily receive the same uptake in the same way if it were to become voluntary, and nor would it be appropriate for it to become a voluntary levy.

Cotton Australia has a very hands-on role in the industry, including a team of Regional Managers whose core role is to service grower needs and support the adoption of myBMP. Likewise, policy staff confront immediate political and industry issues, which are often the core topic of debate and discussion at cotton grower association meetings. Therefore, Cotton Australia has an ongoing and very close relationship with the levy payers, and it deals with immediate and current issues. It also engages a significant communications budget, part of which is aimed at promoting the activities of the organisation. Cotton Australia staff also facilitate the research advisory panels.

In comparison, the work of the CRDC as a research body is more of a long-term activity conducted by third party providers that yields results over a much longer time frame. For example the CSIRO cotton plant breeding program conducted the first cultivar cross in the mid -1970s that produced the first commercial CSIRO cotton variety a decade later in the mid-1980s. In addition some of CRDC's research involves stewardship of existing technologies, which may not always be perceived as being as critical to the industry's immediate needs but are critical to preserving the value of technologies in the long term.

Changing the CRDC levy to a voluntary levy would be a distraction for the CRDC, and would see resources moved away from research towards attracting an uptake-rate of the levy as high as possible. It would necessitate a greater rate of spending on communication engagement and grower forums simply to secure its budget each year. This would be a distraction from what should be its core investing in and managing the research portfolio.

The current system of interaction between Cotton Australia and the corporation ensures that the CRDC reports on its key performance indicators and is informed of industry R&D priorities. Cotton growers charge Cotton Australia with maintaining the industry representation of their stake in the CRDC research and adoption investment portfolio.

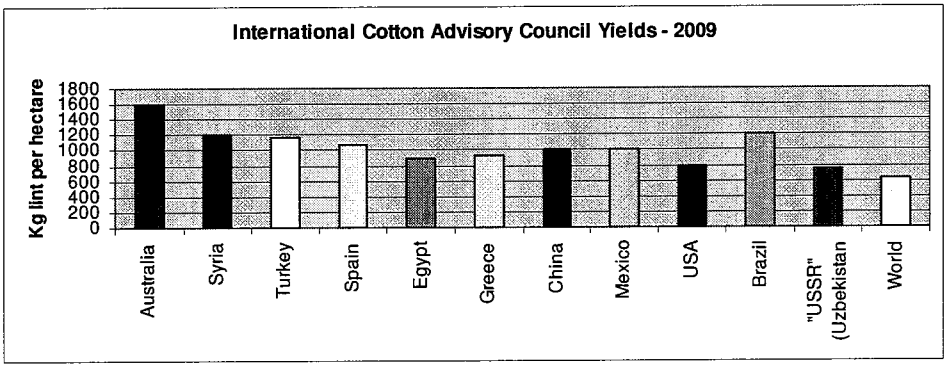
The cotton industry was an early advocate of the matched funding model for agricultural research in Australia. The pioneering growers could see the 'value proposition' for the nation through a co-contribution model that invested in research to improve practices, productivity and as the partnership with government has evolved, the sustainability of the sector and its natural resources and comparative resource advantage in Australia.

THE IMPORTANCE OF COTTON R,D&E INTO THE FUTURE

Growing cotton is an intensive broadacre enterprise that involves a very large financial outlay per hectare to generate a return; significantly greater than crops that can be grown in comparable conditions. However, cotton's level of return is also higher than that of other crops in the northern irrigated farming system. Therefore growing cotton comes with a high degree of risk, but can also delivers significant returns per megalitre and per hectare.

The RDC model is uniquely placed to be attuned to both industry and government priorities in the research investment process. The CRDC R&D portfolio is a balance between, crop protection R&D that seeks to 'protect and defend' the production base from pest threats, productivity R&D focused on maintaining a positive rate of increase while ensuring resource use efficiency, enhancing product value through the supply chain, building a capable industry and an element of research discovery.

Australian cotton farm productivity is the highest in the world and especially notable for the lack of direct grower government subsidies for production (as illustrated below).



Cotton Australia believes the global standing of the industry is the result of a strong culture of research adoption resulting in sustainable farming practices driving profitable farm businesses that contribute strongly to the socio-economic viability of regional communities due to the shared investment commitment of government and producers.

COTTON AUSTRALIA SUBMISSION FORMAT

The Productivity Commission Rural Research and Development Corporations Issues Paper, March 2010 outlines the key issues that the Commission will consider in relation to the inquiry terms of reference with important questions for stakeholder consideration under six headings.

- What the Commission has been asked to do
- How the RDC model operates
- The rational for government investment
- The RDC model is fundamentally sound
- Funding level issues
- Improving the RDC model

This Cotton Australia submission will seek to respond to the Commission's questions from a cotton industry perspective acknowledging that Cotton Australia also supports submissions by the National Farmers Federation, Queensland Farmers Federation and the PIERD Act representative organisations' cross-sector industries submission.

WHAT THE COMMISSION HAS BEEN ASKED TO DO

Cotton Australia recognises the value in the Australian Government seeking to review and reflect on the currency of a government program of some 20 years standing that involves the allocation of some $250m annually in federal funds through the Rural Research and Development Corporations. The Productivity Commission (the Commission) inquiry terms of reference are reasonably focused on the RDC model, however, Cotton Australia would urge the Commission to focus on the whole of primary industries research and the strong position of influence that the specific partnership model of government and industry investment drives in rural and regional Australia.

Cotton Australia has had the privilege of direct meetings with the Commission inquiry team including a site visit to the industry during the 2010 cotton harvest in Narrabri NSW. These discussions have been extremely valuable in providing a level of background and detail to what may seem a clinical economic assessment of the return on investment from a government funding program.

The members of Cotton Australia support the current model as it manifests in the cotton industry through the Cotton Research and Development Corporation. As discussed directly with the Commissioners the RDC Model 'in cotton' has been underpinned by a strong relationship between the industry representative organisation (under regulation) and the CRDC. While not taking the value of the taxpayer investment in cotton R&D for granted there is strong sense among cotton growers that "if it isn't broken then don't try to fix it".

Cotton Australia is concerned that the valuable partnership model may be disrupted across the whole sector when the government is actually more concerned about specific performance situations. To this end Cotton Australia contends that while theoretically there is 'one model', in practice each industry has a different interpretation, governance arrangement and manifestation of the model. Cotton Australia would urge the government to address its specific concerns with RDC performance, governance and reporting obligations through its current enabling legislation and regulation under the PIERD Act and through direct Ministerial intervention if necessary.

HOW THE RDC MODEL OPERATES

The RDC model in the cotton industry is through an independent corporation (CRDC) that is required to take account of industry and government priorities in developing its investment portfolio and which must formally report on progress through the Annual Operating Plan and Annual Reports. The cotton industry has never proposed an industry owned company model to invest in the delivery of R&D in the cotton industry and supports the independent governance arrangements of the CRDC.

Cotton Australia interacts very closely with the CRDC through the development of the Corporation's five year strategic plan and the subsequent implementation of the plan through the annual budget and project investment cycles. Cotton Australia representatives serve on advisory panels that align with CRDC research programs to facilitate consistent, regular feedback and guidance on industry R&D priorities and project progress (see Appendix B for further detail). The annual in-kind time contribution from Cotton Australia representatives to CRDC program management is considerable.

The CRDC capacity to fund R&D that directly relates to cotton production, environmental stewardship, research expertise and industry human capacity development through the matched government and grower funding model underwrites significant investment in rural research. There has been a gradual but relentless decline in the contribution of 'base funded' personnel from all research provider agencies over recent time. Increasingly project proposals submitted to CRDC for funding include researcher and technical officer salaries in addition to operating expenses. Research providers are increasingly resorting to 'leveraging' administration and capital overheads through project proposals while the RDC's are increasingly investing in the researcher capacity.

The recent New South Wales government budget (June, 2010) included a $12m cut to rural R&D that reduced the funding to $138m for rural research by the NSW Department of Industry and Investment (NSW I & I). As NSW I & I is a significant provider of cotton research and development, this continual decline in agency research investment has resulted in pressure on CRDC funding to fill the resulting gap.

Cotton Australia believes that there is considerable focus and accountability given to government research priorities at every step of the CRDC strategic and annual investment process. Most cotton grower representatives are incredulous at suggestions that the RDC's do not account for government priorities for R&D through the government's matching funding, given the extent of this focus by CRDC. The alignment of CRDC goals with government research priorities is documented in the Corporation's Strategic Plan, Annual Operating Plans and Annual Reports.

The CRDC has independent governance arrangements administered by the Australian Government Department of Agriculture, Forestry and Fisheries (DAFF). Cotton Australia interacts with the DAFF administration of CRDC in a very formal manner through the selection of the independent directors appointed by the Minister (MAFF) every three years. Until the implementation of the Uhrig Review into Corporate Governance of Statutory Authorities and Office Holders (2004) the CRDC board had included a government appointed director. Cotton Australia had frequent informal contact with the government director on a regular basis.

The government's policy response to the Uhrig review was to remove all government appointed RDC directors. However, no formal response to account for the loss of a key government representative with a direct role of governmental representation (DAFF in this case) was articulated. Cotton Australia would further assert that the informal

relationship with industry (at least for those with statutory corporations) has declined substantially since the Uhrig Review decision with no formal proposal to underpin 'the model' relationship between DAFF and the industry except through individual representation to the CRDC Board.

Cotton Australia recommends that the Productivity Commission inquiry consider this important link in the broad sense of the governance arrangements that would enhance the relationship between the 'partners' in the model.

Under regulation and ministerial (MAFF) direction Cotton Australia as the CRDC representative organisation is integrally involved in the appointment of the selection panel for nominated independent directors of the CRDC at each board appointment round (typically every three years). Cotton Australia experiences this as a high level of government involvement and oversight of the appointment of CRDC directors with respect to the guidelines for appointment to the selection panel, provision of a highly experienced presiding officer, criteria for director nominations and ministerial appointment of directors and the board chairperson.

Cotton Australia asserts that this is an appropriate level of government oversight of the selection of the board of governance and is surprised and mystified by the implication in the Commission's issues paper that this may not be a uniform approach to all statutory corporation board selection processes. Cotton Australia believes the diligence applied to the selection of CRDC directors is very high and would expect nothing less for all RDCs.

THE RATIONALE FOR GOVERNMENT INVESTMENT

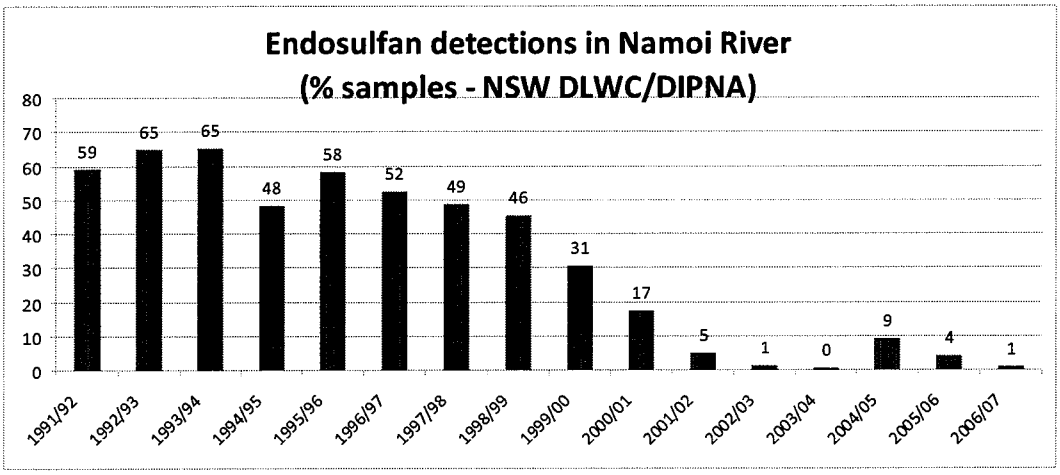
Cotton Australia understands that the Rural Research Councils (1985) and the subsequent Rural Research and Development Corporations were predated by voluntary industry based producer funding arrangements in an ad hoc fashion across the sector. As outlined earlier in this submission the early (~1970s) cotton industry had a voluntary levy arrangement collected by the processors. In some respects matched funding arrangements evolved due to the 'good deal' proposed to government by industries venturing a proportion (typically half) the funds in proposals. The principal of shared responsibility and shared benefit has now underpinned rural research for a generation.

CRDC projects have been included in empirical assessments of performance and return on investment in a number of studies that have indicated high returns on funds invested. The industry has directly experienced the benefits of a long term funding model that enables the long term strategic investment that is required in agriculture and that is not necessarily the case in secondary or tertiary industries.

Why should government provide funding support for rural R&D? Does the basic case for such support rest mainly on wider (spillover) benefits for the community, or are there other important rationales that the Commission should take into account?

Cotton Australia believes that the benefits of the long term investment in rural R&D have underpinned a long term increase in cotton's efficiency and productivity but have also had significant benefits for the nation in improved environmental outcomes, viable regional communities and product export revenue. This is evident in cotton communities from the outcomes of CRDC research investments over the last 20 years.

CRDC investments in integrated pest management and uptake of biotechnology R&D have been strong drivers of reduced pesticide use (over 80% reductions in total applied active ingredient). This has resulted in improved environmental outcomes in cotton communities as is illustrated in the following graph of endosulfan detections in the Namoi River over the last 20 years.



In the future the industry's capacity to equip growers for the changing policy environment would be lessened without continued investment from the RDCs. Policy changes such as ETS, water buy-backs under the Restoring the Balance in the Murray Darling Basin program, re-structures of water access under the Groundwater buy backs by the NSW government, conflicts with mining and agriculture and changes in access and allocation under the MDBA Caps will require farmers to find new ways to manage with access to fewer resources. The Commonwealth's contribution to research has been a major contribution and will continue to help farmers adapt to new and existing policy changes.

What is the Future Need for Food & Fibre Research?

- World population of 8 billion by 2050 and an Australian population of around 50 million who will all need feeding and clothing. To meet that demand we will have to generate annual growth in productivity of around 4%pa.
- Food security and water access may become issues of Global conflict. Australia has a duty to supply food & fibre to the world that is safe, healthy and affordable.
- Changing demographics of the Third World nations in Asia and the Middle East has seen an increase in demand for diets that are higher in protein.
- First World nations have begun to look to food & fibre as a source of health. The quality requirements for safe and healthy food & fibre is going to increase.
- Climate change has the capacity to dramatically change how, where and what food & fibre is grown. The research requirement for farmers, communities and nations to adapt to climate change is probably inestimable.
- The environmental footprint of agriculture in Australia has always been under close scrutiny and, given climate change and food & fibre security to meet Global population, the pressures on the environmental footprint will spread all around the world.

Future Research Needs - CPRS Case Study

Because of the high inputs involved, the cotton industry stands to be significantly effected by policy change in the future that could vary the cost of inputs. As a case study in point; many of the cotton industry's input costs would increase with legislation that increases the cost of energy, such as, for example, the Carbon Pollution Reduction Scheme (CPRS).

Cotton Australia has conducted research investigating how the profitability of cotton growers will change under a regime of increasing electricity and fuel prices, such as that proposed under a CPRS. This research is based on an extensive gross margin analysis and surveys conducted by Boyce Chartered Accountants. This data was then entered into a farm gas calculator constructed by the Australian Farm Institute.

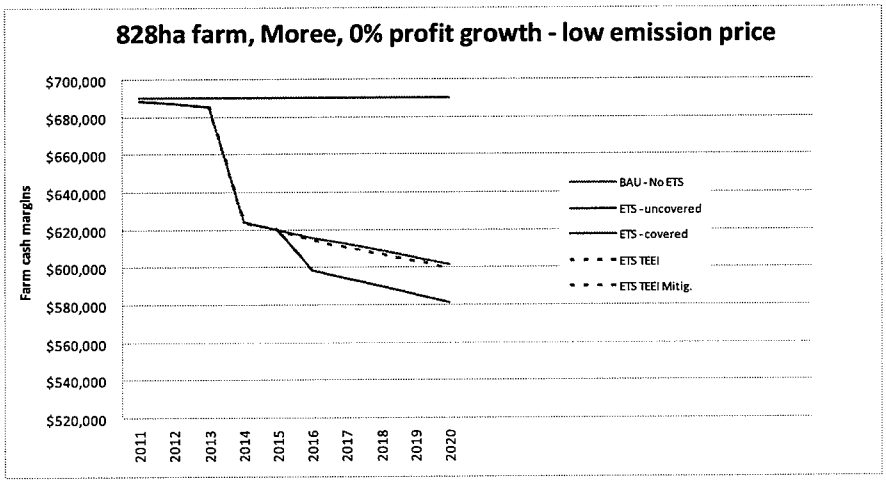
The result has described a future scenario where profitability must increase at a greater rate than that of today in order to simply offset the future losses incurred under carbon reduction legislation.

What defines productivity growth? In this example, productivity growth in actuality is a proxy for profit growth, which in the cotton industry is a direct function of costs, revenue, and efficiency.

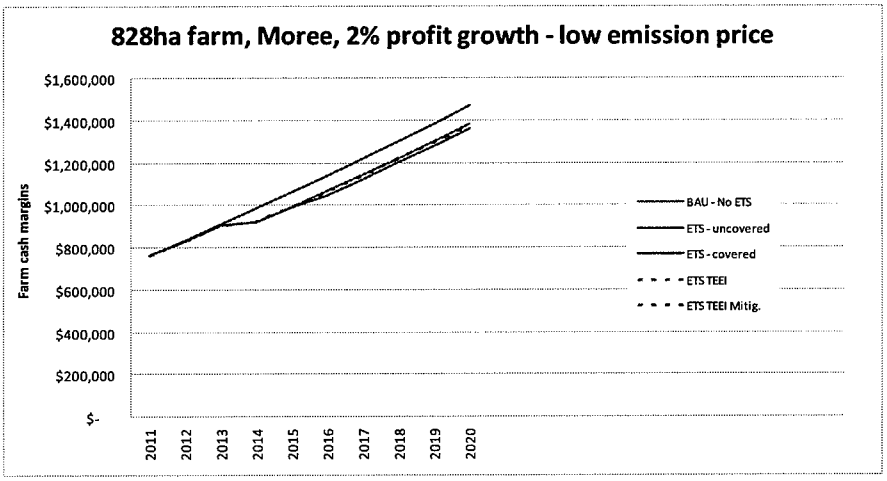
It is through R&D that costs can be reduced, revenue increased, and efficiency boosted over time. History has proven that input costs such as fuel and fertiliser rarely decrease; and in fact steadily increase over time. However, R&D can help reduce the need for some of these inputs, which in turn reduces the cost. Growers can be clever with their marketing and currency trading to capture the best possible prices for their cotton. However, they ultimately can only go so far with their marketing, and cannot influence long-term prices. But R&D can help increase their yield, which in turn increases revenue. R&D can help deliver a premium product, which can likewise increase revenue.

Over the long term, profits per hectare from cotton farms have been close to flat. Yields, quality and efficiency have improved at a substantial rate, but these have also had to match an increase of costs at a comparably substantial rate. These gains have simply offset either an increase in costs, a decrease in the cotton price, or a combination of the two.

This is the 10-year projection for cotton farm profitability under a CPRS with 0% productivity growth (IE, current productivity growth rate but offset by increase in costs):



However, if profitability can increase beyond the current level, then the profit of farmers is more likely to steadily increase, on a trajectory comparable to inflation:



Even under such a scenario the farm cash margins will be less than business as usual (BAU) to varying degrees depending on the nature of a CPRS and the method of coverage for the agricultural sector. However, profitability (productivity) growth can stave off the worst of the impacts.

In reality, the growth rate of the second projection may be too optimistic. However, it is also important that the situation projected in the first graph is avoided. Cotton Australia sees no other way to do this other than through increasing productivity and efficiency. The current R&D model is already kicking goals in this area. The industry needs it to continue and increase.

This is just one example of known change that is possible to measure. In the future, there may be further unknown changes that will have a similar effect on the profitability on farmers.

Therefore, our research suggests that under a CPRS, even the current rate of R&D and its improvements will be insufficient to maintain the current level of profit for cotton farmers. With a government-induced increase in costs, this will greatly impact profit.

Without the Commonwealth's contribution the research agenda would narrow to focus on the shorter term issues of production, yield and cost efficiency. The research agenda within industries (especially the statuary corporation industries) would quickly be politicised to focus on the issues that attract the most attention. The issues identified in the National Research Agenda require long term commitments to research that the growers, on their own, would not and could not afford to commit to. In the cotton industry's situation, the Biosecurity, Human Capacity, Environment and Value Chain strategies would come under pressure. These could be termed the 'public good' strategies.

The great advantage of the CRDC is that as purchasers of research and development the Corporation does not own research facilities, thus RDCs are independent and able to obtain and broker the best skills and facilities. Although the CRDC is a smaller player, it regularly negotiates beyond its means by asking research providers to compete for

funding and in encouraging collaborative projects where none may otherwise exist. This competition does create efficiency. If CRDC no longer existed and the funding quantum was awarded to a single large research organisation, then there would be a dramatic drop in efficiency, research focus, and diversity. The research organisation would use the money to fund its own needs, cover its own costs without check or challenge and design research around its own capacity – rather than around the needs of the growers and the Commonwealth. There would be a dramatic change in the culture of research in the cotton industry.

There is no doubt that regional communities in which cotton is grown are a significant beneficiary of RDC research. Narrabri in north-west NSW for example is the hub of cotton research, wheat breeding at the IA Watson Grains Research Centre and the CSIRO Australia Telescope Compact Array National Facility. To take away CRDC funding, and for that matter GRDC funding would change the culture and vibrancy of many similar country towns that are the service hubs for regional Australia. If research was to be centralised into a larger remote organisation then communities like Narrabri would be significant losers.

Currently, CRDC funds about five PhD students each year. About one in six of those students stays in the cotton industry to perform post doctoral research. The other five go on to make their contribution to the wider research community. Although the cotton industry is a beneficiary of the students whilst they are engaged within the industry, the nation's R&D capacity is a beneficiary when they disperse to the wider research community. Without CRDC funding, those PhD's would not be generated nor would they have the diverse experience of conducting research in regional and rural Australia.

Is the case for government funding support for rural R&D stronger than in other parts of the economy and, if so, why? Do the various rationales apply with equal force to the RDC component of rural research as to the activities of, say, CSIRO and the universities? What specific evidence is there to indicate that projects funded by the RDCs have produced wider benefits for the community that are significant relative to those enjoyed by the industries concerned?

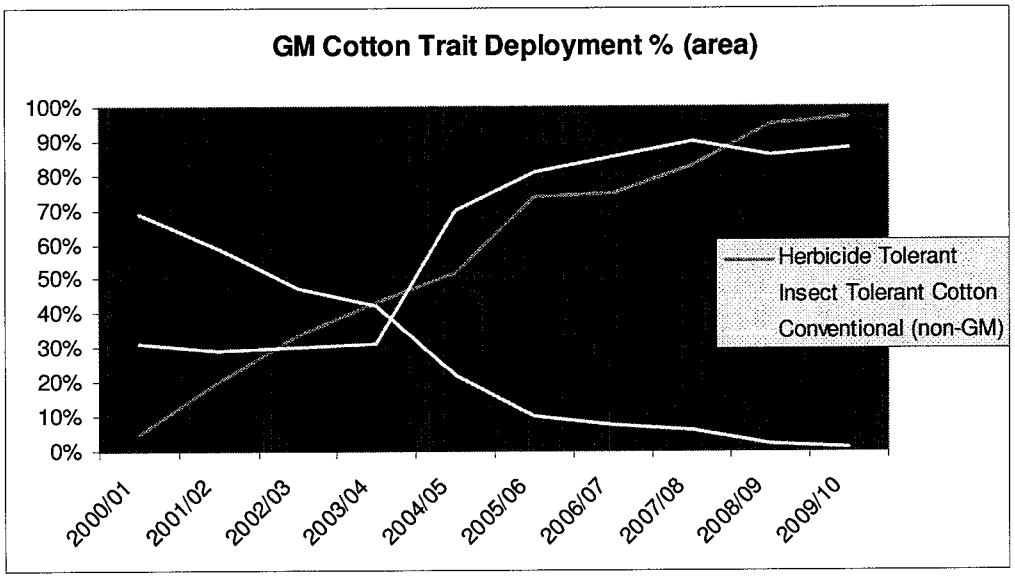
The CRDC has roles in ensuring government and industry priorities are addressed through the investment process and that filters through to research providers across the sector. Cotton Australia regularly observes a high level of coordination and collaboration between research providers driven by the CRDC research project procurement process. This extends to regular (quarterly) coordination meetings between program management staff of CRDC and GRDC to ensure cross sector opportunities are optimised.

Rural industries are, in the main, made up of numerous producers, many with multiple enterprises. The benefits of productivity increases from research easily accrue to all producers in the Australian rural sector. This is certainly the case for Australia's 800 cotton growers, most of whom are also grain growers and livestock producers. The value of the RDC investment model in Australian agriculture is that all producers contribute and this is underpinned by the value proposition of the matched government contribution. Thus there are no 'free-riders' and all benefit supported by the Australian community.

A key issue for Cotton Australia, as the industry member of Plant Health Australia Ltd. and signatory to the Emergency Plant Pest Response Deed is that scientific expertise and diagnostic experience and facilities could not possibly be funded by individual

producers or an informal (non-compulsory) collective funding mechanism. Minimising exposure and risk to Australia's food security and rural trade is of vital national interest and one in which producers have been increasingly forced to cost share with Australian governments. It is clear that human capital is shared across industries within the sector and the National Plant Health (draft) Strategy and Animal Health Strategy are focused on this. The RDCs underpin, in large part, the sector's biosecurity capacity.

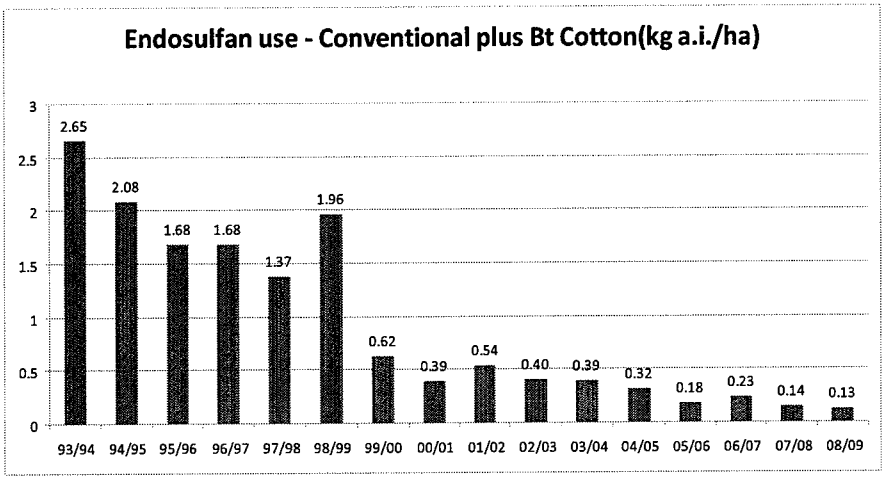
The CRDC has made a significant investment in the implementation and adaptation of transgenic cotton traits in Australia since the first introductions in the mid 1990s. The traits of insect protection (INGARD® and Bollgard II®) and herbicide tolerance (Roundup Ready Flex® and Liberty Link®) have experienced rapid adoption through first and now second generation commercial event introductions into the Australian cotton industry.



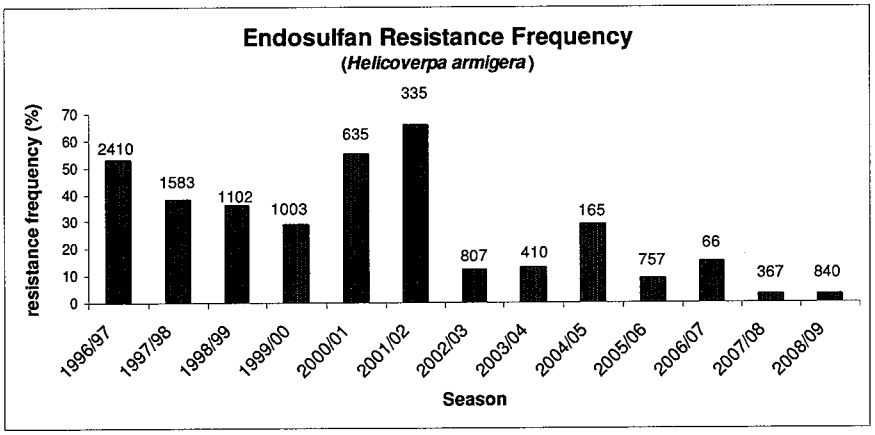
The trait introductions are typically an industry effort in collaboration with technology providers to ensure the successful commercialisation of technologies developed internationally (in this case, of Monsanto and Bayer). Trait introgression into local cotton varieties ensures yield, lint quality and disease resistances can be maintained in the transformed varieties. New traits may require adaptive management to optimise the productivity outcome. CRDC research has enabled Australian growers to rapidly achieve the benefits of these global technologies and remain internationally competitive while ensuring a robust preemptive resistance management and monitoring strategy exists for the maintenance of this comparative advantage through continued pest susceptibility.

The introduction of these technologies has created spill over benefits in multiple directions. As previously discussed, improved environmental outcomes have been significant. Reduced pesticide use has also resulted in increased abundance of natural beneficial insects (pest predators and parasitoids) in cotton fields, greatly assisting in avoiding crop damage and maintaining an important additional resistance management tactic.

Pesticide reductions for *Helicoverpa spp.* control have been significant as demonstrated by the decline in endosulfan use from prior to after the introduction of transgenic insect protected cottons (INGARD® and Bollgard II®) in the following graph.



An additional benefit from reduced pesticide use is a commensurate decline in pest population resistance frequencies. This has occurred across all insecticides registered for control of Helicoverpa spp. in cotton since the introduction of transgenic insect protected cottons. The decline in resistance frequencies for endosulfan are illustrated as follows.



The CRDC research investment has been vital for local adaptation and proper use and management of biotechnology in the cotton industry. Cotton Australia argues that this has been on behalf of the Australian community as well as the Australian cotton grower. This framework provides an attractive situation for technology providers like Monsanto to 'spill in' new technology to the Australian agricultural sector.

What are the practical constraints on basing government funding support for rural R&D around notions of private/industry benefits versus wider benefits, and/or on the degree to which government funding is likely to induce additional R&D activity? Could a naïve application of such an approach have unintended consequences? Where does the appropriate 'sweet spot' between principles and practice lie? For example, can the notion of industry versus wider benefits usefully be employed to determine that at least some R&D should either clearly be inside or clearly outside the government funding net?

The recent quasi commercialisation of the CSIRO cotton plant breeding program through an unincorporated joint venture between CSIRO Plant Industries and Cotton Seed Distributors Ltd. demonstrates that over the long term research investments can and do mature and evolve from public to public-private partnerships that can generate returns leading to commercial viability. However this has been a long term investment in public germplasm development commencing in 1972 with the first commercial variety release in 1985 and the program commercialisation in 2007.

The industry investment in the CSIRO cotton breeding program took the program to a commercially viable point with a commercial partner but this took some 35 years. In that time Australian cotton yields (per hectare) became by far the highest in the world.

The CRDC funding previously committed to germplasm development can now be diverted to more pressing research priorities.

What factors might mute the strength and/or timing of any increase in private funding in response to a withdrawal of public funding for industry-focused R&D? How important in this context are:

- ***divergences between the point in the supply chain where the research is funded and conducted, and the point where most of the benefits of that research are realised***
- ***the long lags before many of the benefits may be realised?***

RDC contributions are not just about keeping rural industries innovative and moving forward; they are also about ensuring at the very least that they do not lag in a globally competitive market.

The decline of agricultural RD&E and the implications for Australian farmers is being increasingly recognised. At the 2010 ABARE Outlook Conference, former Hawke-Government Federal Primary Industry Minister, John Kerin, highlighted that R,D&E was the biggest concern for primary producers.

Mr Kerin, as the former Minister who introduced the PIERD Act (RDC Model), told the Outlook Conference that a decline in agricultural productivity is "not just due to seasonal conditions but that public investment in research has been stagnant since the 1970s".

Cotton Australia would acknowledge that the Australia Government Cooperative Research Centre programme has added to the quantum of rural research in the last decade but in an ad hoc pattern based on the quality of proposals from the rural sector in open competition with economy wide bids.

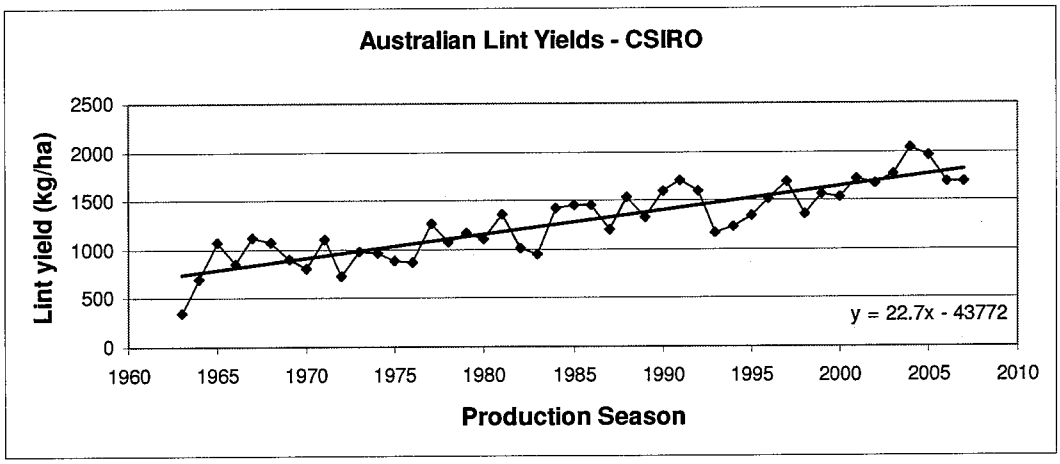
". . . expenditure on R&D is investment, not a cost," Mr Kerin said. "The phase of agricultural production we are now entering and the challenges we face requires some re-dedication to policy and a re-invigoration of passion, leadership and vision."

Not all RDC research projects are guaranteed to succeed. We do not have all the answers and some research, by its very nature, will fail. Commercial investors are likely to be commercially risk averse and expect rapid return timeframes that are not typical of the sector. It is estimated that the total R&D investment was in the vicinity of $61m in 2006/07 (BDA, 2008) including the CDRC contribution of $8.4m.

The Australian Government's direct contribution of approximately $4.2m to cotton R&D through the CRDC in 2006/07 contributes to this critical mass of cotton R&D through the provision of funds for research but also in enabling coinvestment and collaboration.

Cotton Australia would further highlight that agricultural R&D can have a long term investment horizon. Germplasm development or plant breeding has been a long-term research investment in cotton. At the onset of the modern industry growers only had access to US bred cotton varieties that were not adapted to Australian conditions.

The long term benefits from this research are now being realised by Australian cotton growers not just in high yields but in above average lint quality and strong plant disease resistance profiles in many cultivars. This research has been a major success story for the RDC Model in Australian agriculture that is now a commercially funded public-private partnership.



Conversely there are clearly areas of market failure where there is a disincentive for private research investment. Nitrogen use efficiency research aims to optimise the use of applied nutrient or even replace inorganic fertilizer with alternate sources. This is an example of R&D where there is a disincentive for investment from a commercial partner yet the research has an important environmental, productivity and profitability benefit.

Are differences in the benefits that individual producers receive from RDC-funded R&D likely to constrain their collective willingness to offset any reduction in government funding through increased levy payments?

The cotton industry is primarily comprised of mixed family farm businesses with an irrigated cotton enterprise. Large corporate cotton production is relatively uncommon and dryland or rain grown cotton typically does not exceed 15% of the production areas and (due to low yields) is usually less that 10% of total production. Cotton enterprises

are relatively uniform farm areas. There are an estimated 800 farmers that have grown cotton in a least one of the last five years. Cotton production is intensive broadacre production with growing costs of $2,500 per hectare (NSW DPI, 2008) and as a result the cotton industry has a high level of cohesion and cooperation.

The leverage aspect of the RDC model is very important for both producers and the government and represents a valuable shared funding proposition to advance both government and industry research priorities. This funding model is an investment in Australian agriculture, not a subsidy and not a structural adjustment handout. The Australian cotton industry has to compete directly on the world market with subsidised producers in other countries. The Australian RDC model enables a productive and competitive industry that is not reliant on handouts.

Cotton Australia argues that the matched levy system is not a disincentive for private investment in agriculture. The statutory levy is a source of private (grower) research funds that enhances further private investment. The matched Australian government funding enhances the quantum for coinvestment and targeting the government's research priorities.

All cotton growers have a vital interest in the research results from CRDC funded projects due to their individual annual contributions. The statutory levy enhances the pathway to adoption due to the stake individual producers have in 'their' research.

How important is it that government contributes to the cost of maintaining core rural research skills and infrastructure? Without that support, how specifically would the capacity to adapt overseas technologies to meet the particular requirements of Australia's rural sector be compromised? What role do RDCs play in maintaining core rural R&D capacities?

Overseas research and technology hasn't always been able to be directly applied in Australian agriculture. Cotton cultivars from overseas are a case in point discussed previously. Many other technologies such as pesticides and transgenic traits are also developed overseas and must undergo adaptive R&D (that requires significant investment) in Australia to achieve the best outcomes for providers and producers.

Overarching government investments are essential for biosecurity expertise and infrastructure. The National Plant Health Strategy (draft) has identified the critical nature of Australia's research framework to a robust biosecurity system. The RDCs are essential to the development and retention of scientific capacity that underpins Australian agriculture's biosecurity preparedness.

What importance should be placed on outcomes-based rationales for government funding support for rural R&D, such as enabling Australia's rural industries to meet increased global competition; facilitating adjustment to climate change; furthering food and bio-security objectives; and fostering regional development? Is there a risk that seeking to use government funding to drive specific outcomes such as these could distort the pattern of R&D investment and thereby reduce the overall returns to the community?

The value of the RDCs is that they align the government and industry priorities through their budget development processes. They seek to develop an appropriate priority for

each industry which in turn contribute to the whole sector. In this sense the 'sum is much greater than the parts' when it comes to the RDC Model and Cotton Australia sincerely hopes this is reflected in the submissions received by the Commission.

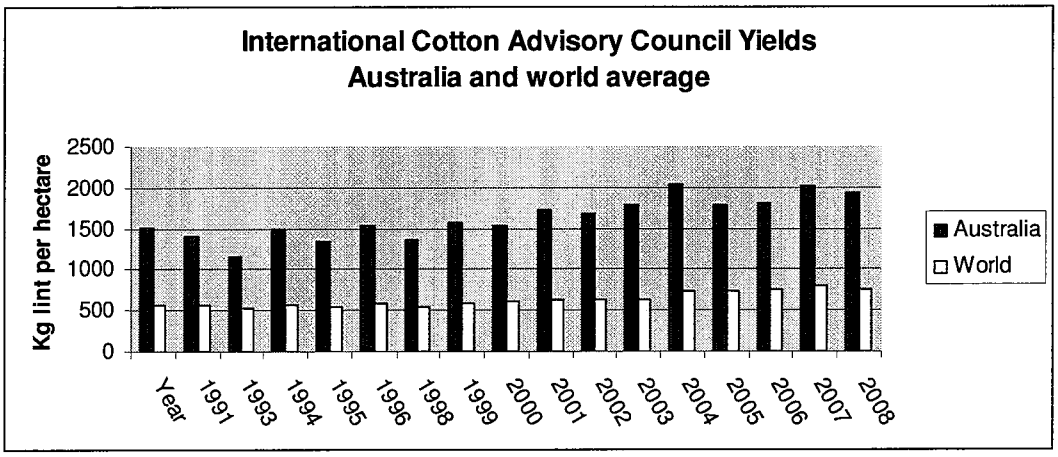
Cotton Australia recognises the value in over arching coordination initiatives to ensure more efficient deployment of RDC resources. Cotton Australia strongly supports the recent RDC initiatives evolved in recent times; the National Program for Sustainable Irrigation (NPSI) and Climate Change Research Strategy for Primary Industries (CCRISPI).

Cotton Australia also recognises that many RDCs have human capacity building programmes that have many similar components, for instance many RDCs sponsor industry participants in the Australian Rural Leadership Program (ARLP). DAFF have also sponsored or directly funded specific capacity building programmes in the past, specifically for under 35 year olds working in the sector. It would seem to be an obvious area for a whole of sector initiative that the RDCs could be well placed to manage given their links with representative industry organisations and DAFF.

Should the level of public funding have any regard to government support for rural industries in other countries?

The government and producer investment in rural R&D has made Australian agriculture the most efficient rural sector in the world. Unlike our major cotton producing competitor, the United States of America, Australian cotton growers do not receive direct production subsidies.

Cotton Australia stresses that the efficient and effective R&D system in Australia is vastly superior and preferable to direct production subsidies that drive inefficiency and declining productivity in other countries.



The above graph describes the productivity performance of Australian cotton growers for over two decades in comparison to a 'basket' of the twelve major cotton producing countries in the world as reported by the International Cotton Advisory Council.

Cotton Australia asserts this is a key outcome of the most efficient and effective industry research, development and adoption model in the world. Something the industry is, and the Australian government should be, proud of and that others in the world aspire to.

IS THE RDC MODEL FUNDAMENTALLY SOUND?

As the representative organisation and key industry stakeholder in the CRDC, Cotton Australia strongly supports the RDC model because it is fundamentally sound. Many of the recent criticisms directed at the RDCs collectively actually appear to be a within the ability of both the Department (DAFF) and the Minister (MAFF) to address through current legislation and regulation.

Cotton Australia, while accepting regular review and renewal is important, is also disappointed that this inquiry into the RDC model in Australia has been positioned so negatively especially by the current Minister for Agriculture, Forestry and Fisheries.

How effective is the current rural R&D and extension framework, and is the role of the RDCs within that framework appropriate and clearly defined?

The rural R,D&E framework is a government initiative through DAFF that is still in progress. Cotton Australia would not consider DAFF have fully engaged representative organisations in this initiative and have left this solely to the respective RDCs to determine.

Cotton Australia would again take this opportunity to request the Commission to consider the key relationships between the partners in the RDC Model and explore more formal options for regular dialogue and involvement between DAFF and RDC (PIERD Act) representative organisations.

- ***Does the significant number of entities, research programs and funding pools cause problems? For example, are there areas of major R&D overlap or gaps? Does any focus on 'leveraging' contributions across the various funding pools cause inefficiencies or perverse outcomes, or does it incentivise desirable behaviour?***

Cotton Australia strongly asserts that leveraging reduces the overlap and the gap problem across the sector. The agricultural sector in Australia is relatively small by world standards although managing a large proportion of the land mass of Australia. Cotton Australia observes a high level of coordination and collaboration across cotton industry research including close alignment with GRDC research activities particularly in farming systems and crop protection R,D&E.

The close participation of industry representative organisations in the RDCs (especially so in cotton as the CRDC is co-located in the geographic and traditional 'heart' of the modern industry) means that the RDCs are very mindful of the efficiency and effectiveness goals of levy payers.

Cotton Australia believes that the number of participants in the R&D sector includes an important spread of providers, critical to covering potential gaps in rural R,D&E. The axing of Land and Water Australia in the 2009 federal budget and the lack of a clear articulation from government of how the subsequent 'gap' would be managed has resulted in a lack of leadership in agricultural water use efficiency management across the sector. Cotton Australia strongly supported the CRDC rescue of the NPSI research program previously led by Land and Water Australia. CRDC, through NPSI, importantly is providing leadership and vision for the future direction of irrigation R&D in Australia.

Further significant disruption to the RDC model in Australia would amplify this problem of lack of government leadership across the sector and for a long period, perhaps a generation. The RDC Model is a constant in a diminishing rural R&D landscape in need of strong government commitment.

Is there an appropriate mix between longer-term and broadly applicable R&D and shorter-term adaptive research, and where in this context should the RDCs be focusing their activities?

Cotton Australia believes there is a good track record of RDCs responding to emerging issues. The cotton industry has been left to manage a number of exotic pest incursions in recent years. The research into appropriate integrated pest management for a new pest has been an urgent issue that required immediate attention to protect productivity and in some cases, such as B-biotype of Silver Leaf Whitefly (*Bemisa tabaci* B-biotype) the production base and industry's international reputation (for lint quality).

Investment in extension and adoption also means there is a team of adaptable personnel available to address emerging industry needs as well as the adoption of longer term R&D outputs.

Cotton Australia experiences the balancing of short and long term research objectives annually through the advice provided to CRDC in the development of the Annual Operating Plan (AOP) and longer term through the development of the five year Strategic Plan. Cotton Australia further understands that the balance of R&D in the CRDC AOP has never been questioned by DAFF and that every CRDC AOP has received Ministerial approval.

Are there any reasons to argue that the RDC model is no longer fundamentally sound? Or can deficiencies in the model be addressed through more minor modifications to the current requirements?

Cotton Australia believes there are no systemic or fundamental problems with the RDC Model, particularly the PIERD Act Statutory Corporations. Further the government has the ability to manage specific difficulties encountered with individual RDCs through existing legislation and regulation.

Cotton Australia also asserts that the government through DAFF could be more actively engaged with their industry partners (representative organisations) in determining the direction and balance of RDC R&D and the evaluation framework to assess and report on progress and impact to industries and the community.

If more fundamental changes might be warranted, what form could these take? How difficult would it be to replicate the strengths of the RDC model within such approaches? Is there scope for 'halfway' house approaches that would harness the respective strengths of the RDC model and alternatives to it? Are there any overseas approaches that are particularly instructive? Are there other major changes required to the role of the RDCs? For example:

Cotton Australia's strong view is that the manifestation of 'The Model' through CRDC works very well for the cotton industry and its communities. The matched funding mechanism is strongly valued by growers who are rapid adopters of CRDC funded R&D.

Despite suggestions that fundamental change is required, Cotton Australia rejects this premise and suggests the Australian Government risks damaging or unraveling a world leading model for government and industry investment partnering in rural R&D.

- ***Do the current levy payment and governance arrangements for the RDCs lead to an excessive focus on R&D effort within the 'farm gate' and, if so, how might this be addressed?***

Cotton Australia is extremely proud of its CRDC representative organisation role on behalf of all cotton R&D levy payers. Cotton Australia representatives take the responsibility of providing advice to the Corporation very seriously. CRDC reporting and feedback occupies significant time in Cotton Australia general meeting agendas in addition to the respective advisory panel deliberations. The industry and government research priorities are constantly reflected in discussion and through annual (AOP) and long term (strategic) plans.

Cotton Australia further contends that the CRDC Strategic Plan, Annual Operating Plans and Annual Reports are submitted to DAFF and ultimately approved by the Minister for Agriculture, Forestry and Fisheries. It has always been Cotton Australia's view that this process of government oversight was the opportunity for the government as a partner with industry in the RDC to reflect on the direction of RDC research and make suggestions and/or changes.

- ***Is overlap with the work of the CRCs largely complementary, or are changes warranted to either or both programs to reduce that overlap? Will the new guidelines for CRCs make it more difficult to get new rural CRCs approved and, if so, what are the implications for the future role and activities of the RDCs?***

The cotton industry has been successful in bidding for three consecutive CRCs; The CRC for Sustainable Cotton Production (1993), the Australian Cotton CRC (1999) and the Cotton Catchment Communities CRC (2005). Cotton Australia has been integrally involved in the development of each proposal and is a participant along with the CRDC in the current Cotton CRC.

Cotton Australia and CRDC have been key proponents of all cotton CRC bid proposals and it is hard to believe that a CRC proposal would gain any traction in an industry unless the representative organisation and the respective RDC did not support the strategic fit or need for the proposed CRC research.

The Cotton CRC research proposals have been developed to be complementary with the CRDC Strategic Plan and current investment portfolio. Given that opportunity a CRC proposal allows an industry to leverage current research and development investments the industry and RDC have a stake in reducing the potential overlap in the CRC proposal.

Developing CRC bid proposals and the process of selection are very demanding for all involved due to the engagement of potential participants and competitive nature of the bid process. In Cotton Australia's experience the CRC selection panels are rigorous in their scrutiny of the value of the proposed research, possible overlap with existing programmes and recommendations for funding on merit.

- ***If State Governments continue to wind back their role in R&D and extension, should the RDCs be seeking to fill the gap, or are there private players that could effectively fill this role?***

The trend for state agencies to reduce their research capacity is accelerating. Cotton Australia believes that the RDCs are already urgently working to fill that gap through a range of project funding mechanisms, both with state agencies and private providers.

A serious consideration for the sector and the Australian government is that, in many cases, the state agencies have legislated roles in regards to biosecurity and it is difficult to reconcile the winding back of state-based R&D with their legislated responsibilities. In some cases many researchers have been redeployed as biosecurity officers that is resulting in a major shift from research to extension of industry based biosecurity management plans.

Whilst this shift from commodity focused research to more sector wide approaches may appear to be a rational response to increasingly limited resources it is forcing the RDCs to respond to urgent research needs and effectively utilise Commonwealth and industry funds to 'plug the gaps'.

FUNDING LEVEL ISSUES

Cotton Australia suggests that the average annual gross value of cotton production (GVP) is in the area of $1b (the recent drought notwithstanding). Estimates of the total R&D investment in cotton of approximately $60m per annum indicate the R&D investment is at a robust level in terms of the sector, reflecting broader confidence from non-government investors underpinned by the government commitment through the RDC model.

Cotton Australia believes that, as many submissions to the Commission Inquiry will indicate, the level of investment in rural R&D could be increased. The high rates of return generated from RDC research projects and reported in numerous empirical studies would concur with the assessment that the Australian taxpayer is receiving a very good rate of return on the investment in rural R&D through the RDC model.

In the case of the CRDC research projects that have been assessed in detail (BDA, 2007) CRDC research returns around $13 for every dollar invested to levy payers but $30 for every dollar invested to the nation.

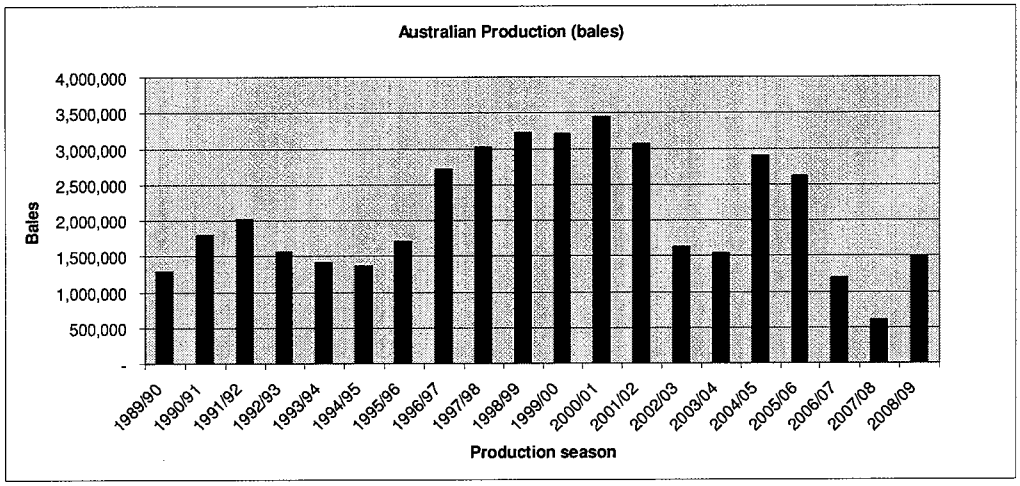
Cotton Australia has always accepted that the RDC model as defined under the PIERD Act allows matched government funding up to 0.5% of the industry GVP. The industry has not and does not seek to increase the government's proportional contribution to the RDCs. Cotton Australia understands that research levies collected from some commodities exceeds the matched level under the model and respects their ability to put those levies in place.

Cotton Australia would support the extension of the mechanism to match voluntary processor contributions with government funding for statutory corporations as is currently in place for the industry owned corporations.

Cotton Australia contends that the RDC model in the cotton industry of matched funding through the CRDC is the right model for cotton.

Is there evidence to suggest that available funding prevents RDCs from investing in R&D which could provide a significant payoff to the wider community; or, alternatively, that RDCs are investing in some projects expected to generate only very modest returns? What does the fact that some RDCs have built up significant surpluses indicate about the availability of worthwhile projects to invest in?

Whilst the RDC model of shared (matched) industry and government funding is an equitable mechanism for investing in rural R&D the Australian environment does place a strain on the model in times of drought. In recent seasons Cotton Australia has experienced the pain of reduced research levy collections from drought impacted crops.



The long term nature of many rural research investments naturally results in a cautious approach from the independent RDC Boards. CRDC has a reserves policy to actively manage its forward project commitments and underpin what would be considered as core research areas into the future. Cotton Australia does not believe the CRDC has an extravagant level of funds in reserve. In fact the management of reserves has avoided an extreme response to funding through a difficult period when production declined to 30 year lows in the 2007-08 season (2008 harvest).

The above graph of production of levied bales over the life of the CRDC is a proxy for the research levy collection. Cotton Australia supports the accumulation of surplus funds by CRDC to fund the forward contractual research project commitments. In the absence of another formal support mechanism the reserves are an essential balancing fund to insure against future decreases in production and not because there is a lack of worthwhile projects.

If the focus of most of the RDCs is on industry-specific and adaptive R&D and related extension, does this suggest that the bulk of the benefits accrue to levy payers? If so, and given the recent evaluations suggesting that these benefits are large in overall terms, why is a significant public contribution justified? Are the wider community benefits from rural R&D commensurate with governments meeting an estimated three quarters of the total cost of this R&D and, as part of

this, the Australian Government meeting nearly half of the cost of the R&D sponsored by the RDCs?

Cotton Australia rejects the premise of this question. The rural sector in Australia is different due to its large resource (land and water) footprint and relatively few people to manage it (estimates are that 95% of the Australian population will be urbanised by 2015).

The rural sector in Australia provides an essential environmental management service to the nation but this is not to say that agricultural production should be subsidised. The investment in R&D through the RDCs enables effective resource management for the nation through productive and profitable primary production. The people in rural and regional Australia don't want handouts - they want to live in these areas economically and sustainably.

IMPROVING THE RDC MODEL

Cotton Australia has close engagement with the CRDC on a number of levels; Board to Board, CRDC executive and Cotton Australia representatives (at general meetings) and Cotton Australia advisory panels with CRDC program managers. The fact that the CRDC is located in one of the largest cotton growing areas at Narrabri, NSW facilitates the close involvement of the industry representative organisation representatives with the Corporation.

Cotton Australia is routinely consulted on possible improvements to the way CRDC conducts the business of investing in research on behalf of the government and cotton growers. Invariably any objective assessments reflect the specialist nature of cotton production in the northern farming system that is not unlike position of sugar cane production in the coastal tropical and sub-tropical north.

Australian cotton has unique needs to that of other crops grown in similar locations and even within the same farm boundary. To distill this as simply as possible, it is a highly temperamental and intensive broadacre crop. Thus, while cotton growers would grow other crops (grains), even if these crops were grown on a similar scale the cotton enterprise consumes far more skill, time and attention. While the cotton enterprise shares some similarities to these crops, it also requires unique knowledge, equipment, and dedication.

Cotton Australia does experience the governance arrangements for CRDC as determinedly independent but open to consultation and representation. If this is perceived as 'light-handed' then Cotton Australia agrees that this is appropriate for optimum industry involvement given the funding contribution from growers' research levies.

Cotton Australia's understanding of the legislative and regulatory framework in which the statutory corporation RDCs operate allows the Department (DAFF) and Minister (MAFF) considerable involvement and oversight of the accountability of the RDCs. It appears many of the publicly aired concerns by government are actually an expression of failure to effectively and consistently communicate reporting expectations of the RDCs.

Cotton Australia would support the Commission investigating means of improving the relationship between DAFF and the RDCs and greater involvement of the industry

representative organisations in the RDC partnership between government and Australian rural industries.

Where do the main opportunities for enhancing the current governance regime lie? Does the fact that some RDCs seem to have more satisfied stakeholders than others provide any insights on how to improve governance arrangements, or are such differences mainly due to the nature of the industries concerned? What changes might be possible to reward (or punish) good or (bad) governance without risking perverse outcomes?

Cotton Australia has experienced a certain inconsistency in the approach of DAFF and the Ministers and Parliamentary Secretaries with portfolio responsibility for the RDCs. The previous government introduced the statements of expectation and intent as an additional level of exchange between the government and the RDCs to more firmly address the government's research priorities in RDC investment decision making and reporting. This seemed to be a reasonable if not somewhat redundant response to the lack of oversight of RDC Strategic Plans, Annual Operating Plans and Annual Reports.

Cotton Australia understands that these exchanges have been discontinued by the current Minister. A pattern of failure of government to implement change but not articulate proposed improvements as followed the removal of the RDC government appointed directors and the axing of Land and Water Australia.

Cotton Australia believes there is considerable scope for improvement of the relationships between the partners in the RDCs; government (DAFF) and industries (representative organisations). The Minister for Agriculture, Forestry and Fisheries is clearly in a position of leadership to direct and facilitate improved consultation between DAFF and the representative organisations and the RDCs.

Is there an appropriate balance on boards between industry expertise and more general skills? If not, is this a result of deficiencies in the processes for electing/appointing boards, or does it reflect other factors?

Cotton Australia believes the CRDC Board is selected on merit and in one sense this has led over time to a reduced number of 'industry expertise' based appointments. The current selection criteria favour previous RDC director experience and this can lead to a 'recycling' of directors through numerous RDC boards over time. This is clearly a danger to the depth of capacity in the sector.

The RDC Boards are relatively large in size for the level of management advice the directors receive. If the 15 RDC boards have an average of 9 directors each then there are 135 directors responsible for the $500m of annual RDC expenditure. It would appear there is more scope than may currently exist to ensure that not only industry expertise but industry capacity building is accounted for in the RDC board selection criteria.

Cotton Australia believes that a key governance risk for the sector is the lack of an overarching initiative to ensure high level human capacity building within industries for adequate governance skills. This is in urgent need of attention across Australian

agriculture. The individual investments that CRDC has in human capacity programs could be leveraged through an overarching sector initiative.

How has the Ministerial approval process for appointments to the boards of the statutory corporations affected outcomes?

Cotton Australia has a high level of involvement in the nomination of CRDC directors for Ministerial approval. The process is very intense and objective and has delivered a good range of skills to the CRDC Board over time. The process is very responsive to Ministerial direction through the selection criteria.

Cotton Australia would submit that this is now well reflected in the diversity and skills of CRDC directors, even to the detriment of industry expertise on the board.

How might any negative impacts of the removal of government nominees from the boards of the statutory corporations be ameliorated? For example, has the attendance of a departmental representative at the board meetings of some of these corporations been helpful?

Cotton Australia suggests that there has been a poor articulation of the alternative involvement of DAFF directly with the RDCs since the implementation of the Uhrig Review recommendations. Attendance by DAFF representatives at RDC Board meetings has been inconsistent and lacking in continuity of personnel and industry knowledge.

Cotton Australia has only had ad hoc involvement with DAFF regarding CRDC matters but would welcome more regular involvement on what is, after all, a unique partnership between industry and government.

To what extent would governance be simplified if the Government's contribution was separately managed, leaving the RDCs to manage contributions from levy payers? Do the benefits for RDCs and levy payers that come with the government contribution outweigh the costs of the more complex governance regime and, in particular, the constraints on the way in which funds can be spent?

Cotton Australia suggests that an obvious outcome from this suggestion would be a greatly increased transaction cost in research procurement. Transaction costs could more than double resulting in an efficiency and effectiveness nightmare.

Smaller industries would be highly disadvantaged particularly if the alternate funding was managed through a competitive platform. Grower levies would ultimately be spent on pitching for venture research funds.

How effective are current industry consultation protocols? Are all of the key stakeholders routinely consulted, or at least provided with adequate opportunity to make their views known? Should the legislative requirement for some RDCs to consult with particular peak industry groups be scrapped and replaced by a more generic requirement simply requiring consultation with an appropriate range of stakeholders?

Cotton Australia's view of the consultation process is that as an industry representative organisation there is a high level of involvement in the progress of current research and the procurement of future research and that this is very effective for both cotton growers and CRDC.

CRDC do not consult exclusively with Cotton Australia but do routinely take account of Cotton Australia advisory panel feedback on current and potential projects and Cotton Australia Board guidance on strategic direction. There are a range of additional stakeholders in cotton industry research and adoption whose views are regularly sort through CRDC processes and they are not excluded despite making no funding contributions through levies.

Cotton Australia believes the representative organisation model is vital for the health of the RDC relationship with industry and would risk a dangerous disconnect with levy payers should it not remain in place. This formal role should help to force difficulties to be overcome where they exist and when they arise.

Are there too many RDCs and, if so, how might this number be reduced? How big are the potential downsides of amalgamations, such as loss of focus and the increased challenges of dealing with a more diverse, and possibly hostile, range of industry stakeholders? Would wider application of the RIRDC approach be a means to reduce total administrative overheads, while still allowing individual industries to retain their 'research identity'?

Australian cotton production has unique needs to that of other crops grown in similar locations and even within the same farm boundary. To distill this as simply as possible; it is a highly temperamental and intensive crop. Thus, while cotton growers do grow other crops such as grains and oilseeds, even if these crops are grown on a similar scale, the cotton enterprise consumes far more time and attention. While the cotton shares some similarities to these crops, it also requires unique knowledge, equipment, and dedication.

CRDC and GRDC have properly considered the merger question in the past and Cotton Australia has arrived at the view, that despite some administration savings, there was a high level of risk to the effectiveness of the cotton and irrigated grains research effort in particular. This examination has forged much greater cooperation between CRDC and GRDC program management staff.

The potential for crossovers and collaboration for R&D exist in some areas and these avenues are already adopted in partnership with the likes of the GRDC, HAL and AWI through co-funded projects with shared objectives and milestones.

Cotton Australia contends that there is enormous potential to lose industry identity through a multi enterprise (commodity) RDC structure. Even if the cotton levy was somehow quarantined to a 'cotton' research portfolio, unless program management staff were assigned to a dedicated research program, there would be a complete lack of focus. There is also potential that any complex governance arrangement could create division on boards.

Cotton Australia believes that the merger suggestion risks industry losing its commodity research identity and ultimately its strong commitment to funding research and adoption through this model.

Are the processes for amending levy rates unduly cumbersome? Are there options for streamlining these processes that would maintain appropriate protections against unduly frequent and potentially disruptive or costly attempts to change levy rates?

Cotton Australia understands the need for strong prescribed guidelines for amending levies. Currently the guidelines require extensive grower consultation for all levy amendments. This represents a transparent process for ensuring levy payers are consulted on any proposed change. However, the process is not undertaken lightly as all the cost and risk is borne by the representative organisation.

Cotton Australia would suggest that the consultation guidelines result in industries delaying small levy increase proposals for research, Plant Health Australia and Emergency Plan Pest Response Deed levies until the quantum of increase required is greater. The cotton industry has not canvassed an increase in the research levy for 10 years during which time CPI increase may well have justified a 30% increase in the grower R&D levy contribution.

Another cotton example is the Plant Health Australia Ltd. (PHA) levy to fund the annual Cotton Australia membership subscription to PHA. In 2000 the levy was struck at a rate of four cents per bale collected on production from July 1 each financial year net of the research levy. In other words, after the Cotton Australia PHA subscription (typically ~$30,000) was collected all remaining bales were levied the full $2.25 per bale research levy. When the PHA levy rate was determined no one conceived of a time when the full subscription may not be collected from a 4 cent per bale levy, however, this occurred in the 2007-08 season due to the lowest production in 30 years.

It would seem a relatively simple proposition to amend the rate of collection of the cotton PHA levy to collect the quantum of the membership subscription quicker as it is net of the research levy by, say, raising the collection rate from 4 cents to 8 cents. However, as this 'looks' like a 100% increase in the PHA levy a full grower consultation would be required under the current guidelines. While being good governance, needless to say, Cotton Australia could not justify the cost and effort of a full industry consultation.

Cotton Australia suggests the Commission consider a levy review mechanism that could implement a 10 year review of unamended research levies to enable representative organisations to proactively address the currency of the levy rate.

Should there continue to be scope for RDCs whose levy receipts are below the ceiling on the matching government contribution to accept funds from 'donor companies' for specific research projects and use this funding to secure an additional taxpayer contribution?

Cotton Australia would see merit in this suggestion as a way to encourage additional research funds from along the supply chain, particularly for the statutory corporations. However, the industry has reached the 0.5% GVP cap on matched funding which prevents any additional voluntary contributions from non-levy payers being matched.

Cotton Australia suggests the Commission consider recommending an additional funding mechanism that would encourage additional R&D contributions from non-levy paying industry entities (e.g. post farm gate processors) above the current matched funding mechanism.

Is there any evidence of a significant mismatch between the regional distribution of levy payments and the regional distribution of the benefits from the ensuing R&D, for particular RDCs or across the program as a whole? Would an explicit effort to more closely align the two materially reduce the overall return to the community from the RDC program?

The cotton industry is fortunate that there is only one crop with two products (lint and seed) grown predominantly in two states (QLD and NSW) by about 800 producers. Consequently one of the key strengths of the industry's research efforts is the cohesive nature of the cotton growing community and recognition of the value of R&D resulting in a strong and rapid adoption of research outputs. As discussed previously in this submission this has led to outstanding positive research impacts that have benefited the growers, their communities and the environment.

Despite a concentration of cotton research conducted at the Australian Cotton Research Institute at Narrabri, NSW there is wide spread uptake of this R&D across the industry. Additional centres of excellence in cotton research exist at the QDEEDI Agri-science Queensland facilities in Toowoomba and the CSIRO Plant Industries and Entomology divisions in Canberra and division of Textile and Fibre Technology in Geelong.

CRDC funded researchers are closely linked to industry activities and have direct relationships with individual growers and regional grower groups.

In addition CRDC funded regional extension officers are located in regional areas throughout the industry. Research can be validated across industry by extension services particularly in the far northern and southern regions.

In the case of the cotton industry, to attempt to more closely match levy payers with the actual conduct of research would certainly spread the R&D effort too thin. The current situation enables an important critical mass of research scientists to develop ideas and receive guidance and mentoring from experienced colleagues.

CONCLUSION

The Australian cotton industry has a long and proud tradition of strong support for R&D that predates the RDC model. The PIERD Act provided a formal structure to the evolving partnership between rural industries' need for a broad portfolio of research and the Australian government's interest in the value proposition that matched producer funding represented.

The outcome is an efficient system that has proved (by any number of studies) to be highly effective and well placed to discover innovative solutions to the challenges of the future. The model is increasingly underpinning the scientific expertise that is Australian agriculture's frontline research defense of the productive base that ensures the nation's food security, viable regional communities, environmental stewardship of agricultural lands and an important component of the nations export income.

Cotton Australia believes there are no fundamental or systemic problems with the Australian RDC Model and strongly cautions the Productivity Commission to find that the Australian Government risks unraveling the strong legacy that this bipartisan model has delivered in a viable, productive, sustainable, technically innovative and skilled, globally competitive sector of the Australian economy.

Abbreviations

ABARE - Australian Bureau of Agricultural and Resource Economics
ACGRA - Australian Cotton Growers Research Association Inc.
ACRI - Australian Cotton Research Institute, Narrabri
AOP – Annual Operating Plan
ARLP - Australian Rural Leadership Program
AWI – Australian Wool Innovation Limited
BMP - cotton Best Management Practices program
CCA - Crop Consultants Australia
CGA - Cotton Growers' Association
CRC - Cooperative Research Centre
Cotton CRC - Cotton Catchments Communities Cooperative Research Centre
CRDC - Cotton Research and Development Corporation
CPRS - Carbon Pollution Reduction Scheme
CCRSPI - Climate Change Research Strategy for Primary Industry
CRRDCC - Council of Rural Research and Development Corporation Chairs
CSIRO - Commonwealth Scientific and Industrial Research Organisation
DAFF - Department of Agriculture, Fisheries and Forestry
GRDC - Grains Research and Development Corporation
GVP – Gross Value of Production
HAL – Horticulture Australia Limited
IOC – Industry Owned Corporation
IP - Intellectual Property
LRS - Levies Revenue Service (DAFF)
MAFF - Minister for Agriculture, Fisheries and Forestry
NFF – National Farmers Federation
NPSI - National Programme for Sustainable Irrigation
NSW I & I – NSW government Department of Industry and Investment
PC - Productivity Commission
PHA – Plant Health Australia Limited
PIERD Act - *Primary Industries and Energy Research and Development Act 1989*
QFF – Queensland Farmers Federation
QDEEDI – Queensland Department of Employment, Economic Development and Innovation
RO - Representative Organisation (under PIERD Act 1989)
R & D - Research and Development
R,D & E - Research, Development and Extension
RIRDC - Rural Industries Research and Development Corporation
RDC - rural Research and Development Corporation

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APPENDIX A

Cotton Australia Members as at 1st June, 2010

Cotton Grower Association Members

Biloela Cotton Growers' Association Inc.;
Darling River Food and Fibre Inc. ABN 38 356 590 146
Central Highlands Cotton Growers' and Irrigators' Association Inc. ABN 69 261 911 658
Darling Downs Cotton Growers' Inc. ABN 59 052 168 226
Dawson Valley Cotton Growers' Association Inc. ABN 12 723 320 564
Dirranbandi Cotton Growers' Association Inc. ABN 50 290 896 683
Gwydir Valley Cotton Growers' Association Inc. ABN 93 442 174 064
Lachlan and Murrumbidgee Cotton Growers' Association Inc. ABN 67 815 294 324
Lower Namoi Cotton Growers' Association Inc. ABN 85 324 026 364
Macintyre Valley Cotton Growers' Association Inc. ABN 66 223 455 480
Macquarie Cotton Growers' Association Inc. ABN 52 975 286 580;
Mungindi Water Users' and Cotton Growers' Association Inc. ABN 24 394 363 828;
St George Cotton Growers' Association Inc. ABN 30 437 038 084;
Upper Namoi Cotton Growers' Association ABN 49 160 202 310;
Walgett Cotton Growers' Association Inc.

Ginning Members

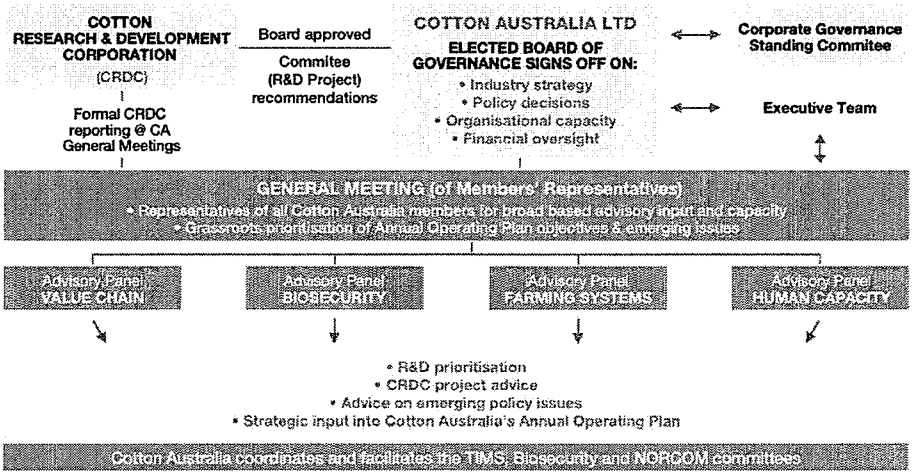
Auscott Limited ACN 008 436 011;
Carroll Cotton Co. Pty Limited ACN 071 098 336;
Darling River Cotton Pty Limited ACN 002 404 588;
Dunavant Enterprises Pty Limited ACN 003 415 950;
Namoi Cotton Co-operative Limited ACN 010 485 588;
North Bourke Growers Ginning Company Pty Limited ACN 069 157 857;
North West Ginning Pty Limited ACN 003 905 039;
Queensland Cotton Corporation Pty Limited ACN 010 944 591;
Tandou Limited ACN 001 014 562;
Twynam Agricultural Group Pty Limited ACN 000 573 213

Service and Industry Members

Cotton Seed Distributors Ltd ACN 000 568 730
Crop Consultants Australia Inc. NSW 1587749674

APPENDIX B

THE GROWER REPRESENTATION MODEL



EXECUTIVE SUMMARY

OUR PURPOSE

To advance the interests of the Australian cotton growing industry

OUR STRATEGY

ORGANISATIONAL CAPACITY & EFFICIENCY + **ENVIRONMENTALLY SUSTAINABLE PRACTICES** + **PRO-ACTIVE REGULATORY ENVIRONMENT** + **COMMUNITY SUPPORT & MARKET DEMAND** ▶ **A SUSTAINABLE COTTON INDUSTRY VALUED FOR ENVIRONMENTAL, ECONOMIC AND SOCIAL OUTCOMES**

OUR PORTFOLIOS

Member Services and Capacity Building

- 5 year strategic plan
- Human resource strategy
- Define core role and value proposition for Cotton Australia
- Access to an innovative team of people who provide quality services to members

Research Direction and Industry Stewardship

- Grower directed research
- Coordinated working relationships between research organisations
- Cotton conference key avenue for research outcomes
- Stewardship initiatives/ programs

Policy and Advocacy

- Grower endorsed position on key issues
- Relevant policies to the social, economic and environmental needs of the industry and Australian community
- Legislation facilitates a competitive Australian cotton industry
- Leverage policy positions

Communication and Engagement

- Fresh communication strategy
- New Cotton Australia Member's Forum – two-way communication loop
- Deepen working relationships with stakeholders – government and general public
- Develop a cotton growing culture of cooperation/ collaboration

- A cohesive and progressive cotton industry throughout the supply chain
- Environmentally sustainable water and land use
- Cotton industry enhanced through adoption of research outcomes
- Industry capacity to rapidly respond to changing government and societal demands
- Government, media, key decision maker and community acceptance of the value of the Australian cotton industry
- Enhanced market position for the Australian cotton industry