

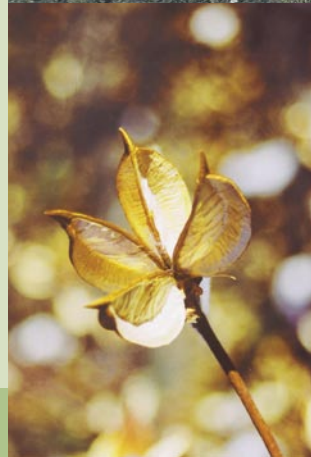


Australian Government
Cotton Research and
Development Corporation

ANNUAL OPERATING PLAN

Cotton Research and Development Corporation

2006-07



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EXECUTIVE SUMMARY

The *Annual Operating Plan 2006–07* is the fourth devised under the *Cotton Research and Development Corporation (CRDC) Strategic Plan 2003–2008*, which set in place triple bottom line accountability. CRDC must deliver clearly defined and measurable environmental, economic and social benefits to the cotton industry and the wider community.

In order to ensure that the strategies and the measures of success contained in the current strategic plan are still of relevance to both industry and Government, and to measure progress made against these measures over the past 12 months, the Corporation, its industry stakeholder (the Australian Cotton Growers Research Association (ACGRA)), and other key cotton industry and government personnel reviewed the plan in February 2006. The outcome of this review was a range of updated priorities which are being used to guide the Research and Development (R&D) investment portfolio for the coming year.

The establishment of the Cotton, Catchment, Communities Collaborative Research Centre (Cotton CRC) in October 2005 has had a significant impact upon the Corporation's forthcoming investment portfolio. The Corporation has committed \$4 million to the CRC each year in projects which address both organisations' strategic objectives. The coming year will see co-investment in projects with the Cotton CRC as well as the provision of a significant amount of in kind support through the provision of Program Leaders from within the Corporation.

Following a joint CRDC/CRC review of the National Cotton Extension Network in 2005, the Corporation has placed a renewed emphasis on the enhancement and development of this unique network of industry experts. Coordinated delivery of R&D outcomes and advice to growers will be achieved through increased investment in the number and reach of extension personnel as well as integrating more fully the links between the Extension Team and the cotton industry's Best Management Practices (BMP) program.

Over recent years, the cotton industry has fully embraced the use of genetically modified (GM) technology, with almost 90 per cent of plantings in the 2005–06 season consisting of GM varieties. Bollgard®II has proved to be outstandingly successful in reducing the amounts of insecticides used in the industry and has also, consequently, reduced the need for the same level of research into conventional pests—particularly with reference to *Helicoverpa sp.* However, the flip side of reduced spraying for *Helicoverpa sp.* is an increase in the emergence of 'secondary' pests—in particular, aphids, silverleaf whitefly and mirids—which are emerging as a significant challenge for the industry. Investment will therefore be channelled into research which aims to increase industry's understanding of how integrated pest management (IPM) techniques can be enhanced to control secondary pests.



The issue of the profitability of the cotton industry remains a concern for many growers. With world cotton prices still well below the historical average, and the ever increasing costs of inputs such as fuel, water, fertilizers, equipment and labour, the bottom line is extremely tight. With this in mind, the Corporation intends to invest in the transfer of knowledge to assist growers to overcome profitability issues and will be a major investor in the 2006 Australian Cotton Conference whose theme will be 'Production, Product and Profit –Progressing our Natural Advantage'.



With increasing amounts of community, political and peer pressure for cotton growers to improve their water use efficiency (WUE), investment in WUE related research, development and extension remains a top priority for the Corporation. As well as continuing to invest in the well regarded Water Extension Team, the Corporation will also place an increased focus on investment in water use efficiency practices and technologies by seeking to establish an irrigation program delivered through Cotton CRC. This program will be targeted at whole of farm water use efficiency and profitability with more direct linkages to the cotton Best Management Practice (BMP) program.

The contribution of breeding and biotechnology towards the ability of the Australian cotton industry to remain competitive in the global marketplace continues to increase. Fibre quality and disease resistance will be a major focus for the Corporation's increased investment in breeding and biotechnology via the CSIRO Plant Industry Breeding and Biotechnology Team. In addition to this, a joint venture between the Corporation, CSIRO and Cotton Seed Distributors (CSD) –'CottTech'–will further enhance the range of investment and the scope of R&D in this important area.

Levels of investment in the Corporation's 'Value Chain' program continue to increase as the industry seeks to broaden the scope for adding value to Australian Cotton. The coming year will see the final stage of the cotton industry 'Pathways to Environmental Management Systems' project–which is seeking to extend the BMP program to the entire length of the production chain and associated work which aims to develop a brand for Australian cotton along the lines of its quality and environmental credentials.

In summary, the Corporation will invest over \$11.7 million in research, development and extension with the addition of \$740,000 being committed to Corporate R&D activities during 2006–07.



Bruce Finney
Executive Director

ABOUT CRDC

OUR VISION

A globally competitive and responsible cotton industry

OUR MISSION

Invest and provide leadership in research, innovation, knowledge creation and transfer

OUR OUTCOME

A more sustainable, profitable and competitive cotton industry providing increased environmental, economic and social benefits to regional communities and the nation

BACKGROUND

The Cotton Research and Development Corporation (CRDC) was established in 1990 under the Primary Industries and Energy Research and Development Act 1989 (PIERD Act), which outlines its accountability to the Australian Government and to the cotton industry through the Australian Cotton Growers' Research Association (ACGRA). CRDC is one of 14 Rural R&D Corporations accountable to the Australian Government through the Minister for Agriculture, Fisheries and Forestry the Hon. Peter McGauran MP and the Parliamentary Secretary to the Minister, the Hon Sussan Ley MP.

To fulfil its legislated charter, CRDC:

- Invests in and manages a broad-ranging portfolio of research, development and extension projects that seek to enhance the ecological, social and economic values associated with cotton production systems and to increase benefit to cotton industry participants, regional communities and the Australian people.
- Funds and coordinates the development of technical and non-technical documents, guides and other information tools and coordinates workshops, seminars and field days for a range of purposes, including research review and progression, information sharing or technology transfer to industry.
- Produces a range of publications about corporate activities and operations and to disseminate research outcomes. It acts as a formal and informal information source for stakeholders and client groups through general industry media activities as well as through its website, www.crdc.com.au.

CORPORATE STANDARDS

Under the CRDC Statement of Principles, the directors and staff:

- Are committed to excellence and productivity
- Are committed to providing the highest levels of accountability to stakeholders
- Will act legally, ethically, professionally and responsibly in the performance of their duties
- Strive to maximise return on investment of industry and public funds invested through our corporation
- Strive to make a difference in improving the knowledge base for sustainable cotton production in Australia
- Value strategic, collaborative partnerships with research providers, other research and development bodies, industry organisations, stakeholders and clients, for mutual industry and public benefits, including cooperation with kindred organisations to address matters of national priority

- Value the contribution, knowledge and expertise of the people within our organisation and that of our contractual consultants, external program coordinators and research providers
- Promote active, honest and effective communication
- Are committed to the future of rural and regional Australia
- Comply with and promote best practice in corporate governance
- Are committed to meeting all statutory obligations and accountability requirements in a comprehensive and timely manner.

THE RURAL RESEARCH AND DEVELOPMENT CORPORATIONS MODEL

- The Rural R&D Corporations (RDCs), including CRDC, take a leading national role in planning, investing in and managing research and development for their respective industries.
- RDCs are not research "grant" agencies. Their enabling legislation requires them to treat R&D as an investment in economic, environmental and social benefits to their industries and to the people of Australia.
- Rather than focusing mainly on generating new knowledge for its own sake, RDCs strive to deliver high rates of return on research and development investment by influencing the full range of interactions along the innovation chain.
- Striving for high returns on investment also leads RDCs to apply significant resources to translating research outputs into practical outcomes.
- RDCs are required to conduct their activities in accordance with strategic research and development plans and annual operational plans that take account of the needs of end-users and other stakeholders. The plans are approved at ministerial level.
- Although RDCs fund basic research, a high proportion of activity is applied research and development – both short-term and long-term.
- RDCs are fully accountable to their major stakeholders and to the wider community.

COLLABORATION

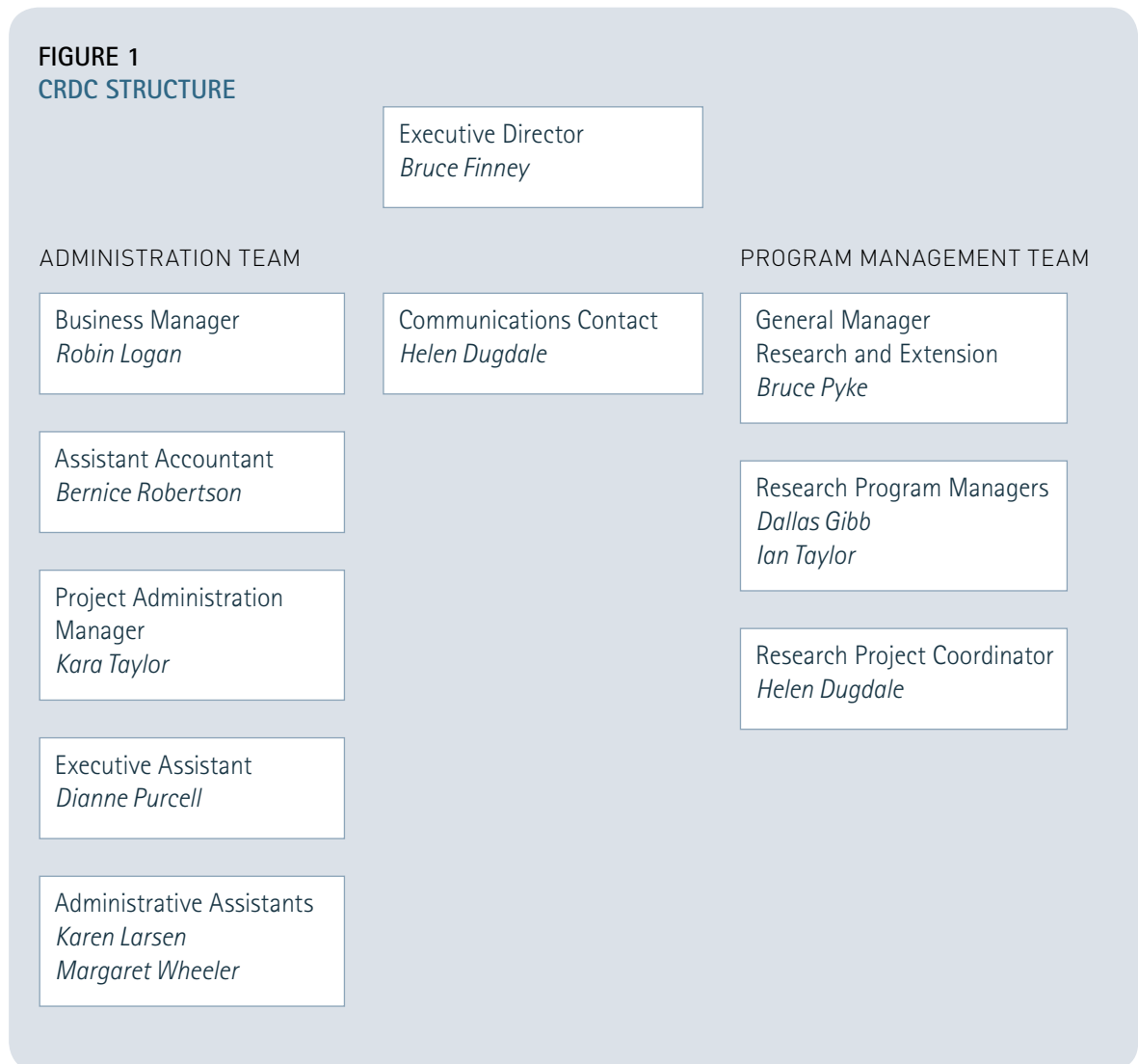
CRDC is involved in joint or collaborative research efforts with a range of other organisations, including Grains Research & Development Corporation, Land and Water Australia, Horticulture Australia, Rural Industries Research & Development Corporation, the Murray-Darling Basin Commission and the Cooperative Research Centres for Weeds and Greenhouse Accounting.

In addition, the Corporation is a key partner and investor in the Cotton, Catchment Communities Cooperative Research Centre which began its operations in October 2005. CRDC will co-invest \$4 million per annum in CRC R&D programs for the next six years.

KEY RESEARCH PROVIDERS

- Cotton Catchment Communities CRC
- Australian and state government agencies
- CSIRO Divisions of Plant Industry, Entomology and Textile and Fibre Technology
- Universities
- Other Rural Research and Development Corporations
- Cooperative Research Centres
- Cotton Consultants Association
- Agribusinesses

FIGURE 1
CRDC STRUCTURE

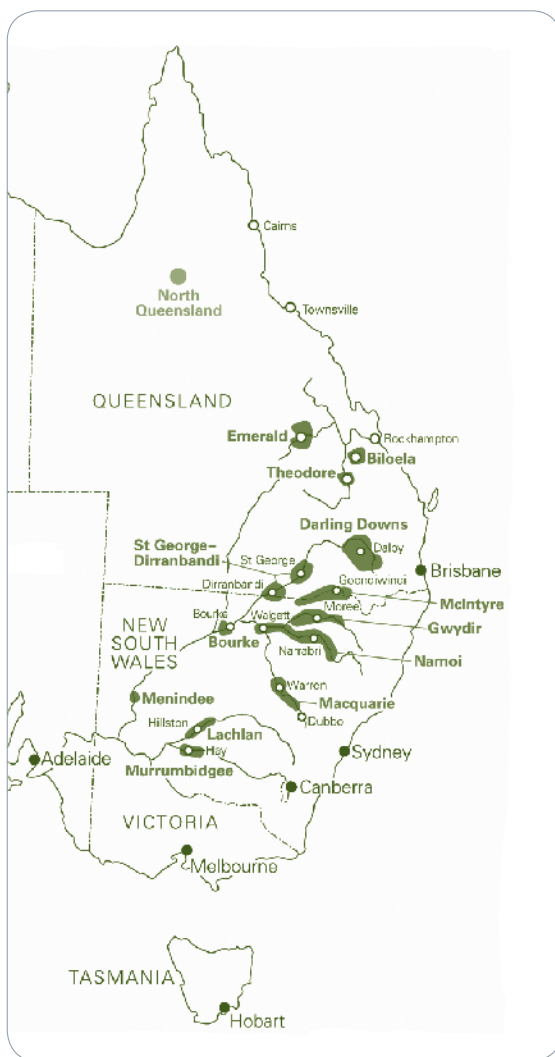


THE AUSTRALIAN COTTON INDUSTRY

Every day, across the world, people wear cotton clothing and use cotton products. Cotton is the most widely produced natural fibre in the world and represents about 40 per cent of the world textile market.

The cotton industry in Australia is relatively small—there are about 1200 cotton farmers, with around 70 per cent of Australia's cotton grown in New South Wales, and the majority of the remainder grown in Queensland.

FIGURE 2
COTTON GROWING AREAS OF EASTERN AUSTRALIA



Today's cotton farms are typically 500 to 2000 hectares, highly mechanized, capital intensive, technologically sophisticated and require high levels of management expertise. The average yield for irrigated cotton is 1800 kilograms per hectare—the highest in the world (Source: *Cotton Australia, 2005*). These figures can be attributed almost entirely to improved cotton breeding and better crop management systems, which have been achieved with a reduced impact on the environment.

The economic and environmental health of the industry can be largely attributed to high quality collaborative research and development, much of it coordinated and funded by the Corporation. Combine this culture of innovation and continuous improvement with practical implementation and willingness to adopt new ideas by growers, and you have an industry which is very quick to pick up and act upon new research outcomes.

Despite its relatively small size, the Australian cotton industry makes a significant contribution to the national economy both in terms of exports and employment. On a global scale, Australia is not a large producer—only around 3 per cent of the global crop is grown within Australia. Yet, Australia is the third largest exporter of cotton in the world, and over 95 per cent of the national crop is exported. All in all, the cotton industry is worth over \$1.5 billion in normal production years, and employs an estimated 10,000 people on a sustainable and successful footing.

The Australian cotton industry operates in an environment of intense global competition and must, therefore, continually improve operational efficiency, environmental sustainability and quality of the product if they are to remain competitive. That is why the continued R&D effort of the Corporation, in conjunction with its government and industry stakeholders, remains of paramount importance to the industry and an essential tool in maintaining and enhancing the security of international markets.

ACHIEVING THE OUTCOME

R&D INVESTMENT PROCESS

CRDC calls for research applications nationwide using advertising in national newspapers, research publications and on the Corporation's website. In the past, the procurement of R&D has been a one-stage process. However, from 2005–06, the Corporation introduced a two-stage process whereby applicants submit a Preliminary Research Proposal (PRP). If the PRP is judged to be in line with the Corporation's strategic priorities, the applicant is then requested to submit a full proposal by late January.

Directors allocate research funding at the annual budget meeting in March on the basis of a review of applications for new projects and reports from continuing projects.

All projects are assessed and performance reviewed by the Corporation's industry stakeholder, the Australian Cotton Growers' Research Association (ACGRA), who also make recommendations on new applications on behalf of the industry.

Where necessary, the Board will also commission research to fill gaps identified in the research program and to meet priority needs. The Board also sets aside an amount for contingencies, so that urgent research and development projects can proceed without undue delay.

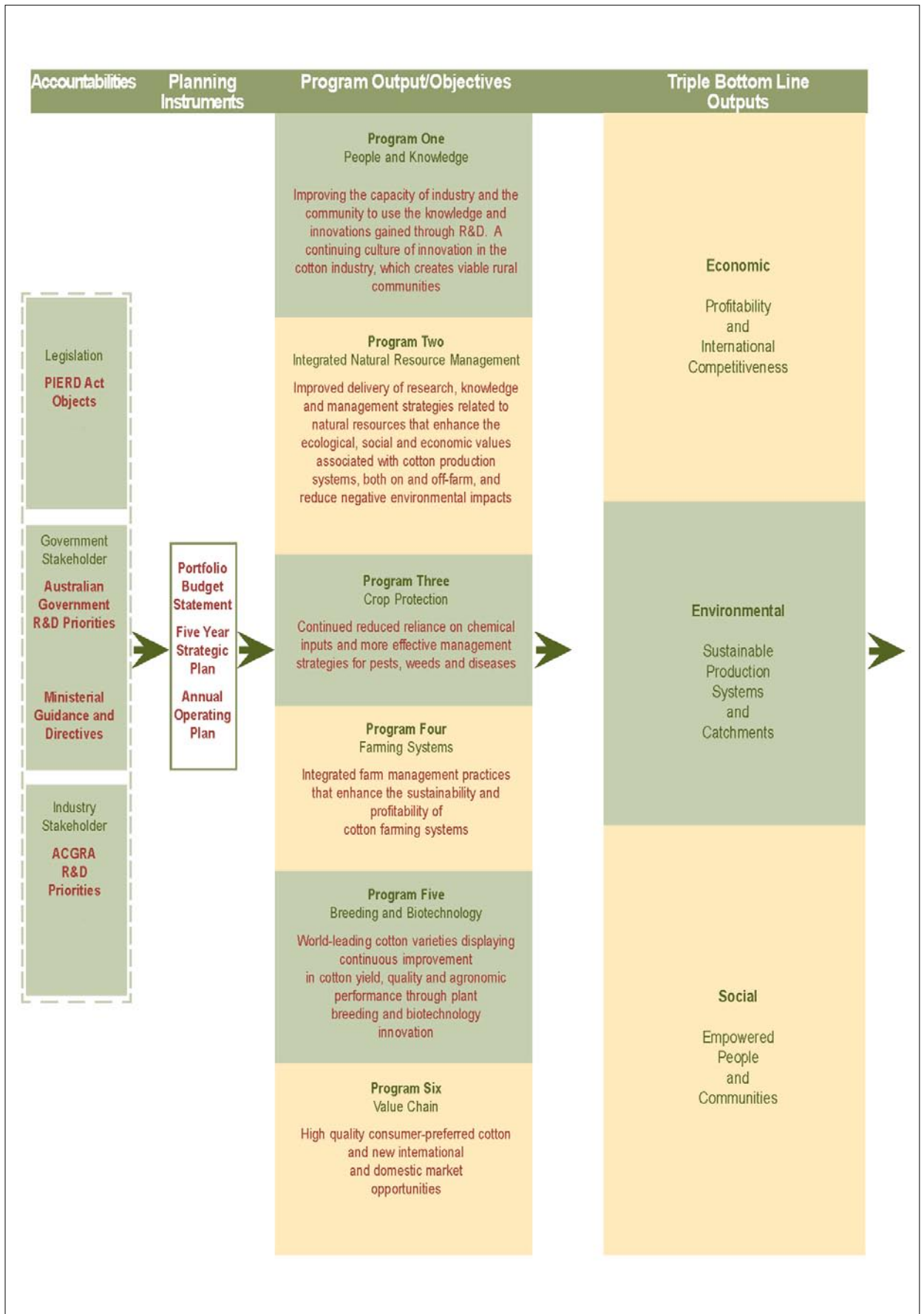
TRIPLE BOTTOM LINE REPORTING

The *CRDC Strategic Plan 2003–08* and *Annual Operating Plans* are formulated to implement the corporation's objectives and outcomes using a triple bottom line framework for planning, implementation and reporting. They deliver one integrated outcome via three outputs:

- Economic Profitability and International Competitiveness
- Environmental Sustainable Production Systems and Catchments
- Social Empowered People and Communities

In addition to the targets listed under each research program, the Corporation has developed targets that address its environmental, economic and social outputs. These can be found on page 11. Unless specified otherwise, these targets extend to the end of the five-year strategic plan in 2008.

FIGURE 4
OUTPUTS AND OUTCOMES FRAMEWORK



| Triple Bottom Line Objectives | Key Targets | OUTCOME |
|---|--|---|
| <p>Evidence that tools and knowledge products are contributing</p> <p>Employment of people in R&D</p> <p>Improved relative economic returns of cotton crops</p> <p>Increased returns per megalitre of water</p> <p>Increased yields per hectare and per megalitre of water</p> <p>Evidence of management options and farming practices that reduce costs or improve profitability</p> <p>Evidence that new cotton varieties are increasing yield, improving fibre quality and potential returns</p> <p>Improved fibre quality to reduce financial discounts received by growers</p> <p>Increased market opportunities evidenced by market analysis of pricing demand for Australian cotton in the world market</p> | <p>A 10% improvement in cotton yield per hectare by 2008</p> <p>Evidence of continuous improvement in 5 key parameters measured in spinning mill benchmark surveys</p> <p>Evidence that prices for Australian cotton remain above those for competitive cotton growths in 2005 and 2007</p> <p>Evidence that profit margins are improving over time: 2003 – 2008, both annually and trends over time</p> | |
| <p>Reduced chemical inputs</p> <p>Improved water use efficiency</p> <p>Increased adoption of BMP</p> <p>Broader environmental coverage of BMP and recognition in the market place</p> <p>EMS evaluated as a farm management tool</p> <p>Improved trends in landscape and catchment indicators such as salinity, water quality and biodiversity</p> <p>Benchmark soil health and improved nutrient recovery</p> <p>Published refereed science on environmental impacts of new transgenic technology</p> <p>Benchmarked greenhouse gas emissions, energy use and climate change impacts</p> | <p>A 50% reduction in 2004 quantities of insecticide used by 2008</p> <p>A 20% reduction in 2004 quantities of residual herbicide used by 2008</p> <p>Continued decline in riverine contamination by herbicides used only in cotton production by 2008</p> <p>80% of cotton production audited against BMP Minimum Certification Standards by 2007</p> <p>A 20% improvement in farm WUE against the 2004 median by 2008, measured in bales per megalitre</p> | <p>A more sustainable, profitable and competitive cotton industry providing increased environmental, economic and social benefits to regional communities and the nation</p> |
| <p>Improved skills and qualifications of people at all levels of the industry</p> <p>Scholarships to students</p> <p>Study exchanges and conference support for people at all levels of the industry</p> <p>Improved OH&S performance in workplaces and reduced health and injury risks</p> <p>Employment of people in R&D, including age, gender trends and location</p> <p>More women in key industry roles</p> <p>Capacity building activities with industry, schools, universities and community groups that improve social capital</p> <p>Evidence of proactive stewardship of transgenic and conventional technology</p> <p>Collaborative links and partnerships established to improve knowledge exchange into and out of the industry</p> <p>High quality cotton (lint and seed) that meets market needs and consumer preference</p> <p>Improved perception of cotton production by the community</p> | <p>Between 2003 and 2008:</p> <p>At least 15 new Postgraduates in areas of high priority future need</p> <p>At least 10 new Post-doc positions in areas of high current need</p> <p>80% of cotton growers having attended a relevant training course in OH&S, IPM or Water Management</p> <p>Healthy and resilient communities in cotton producing regions through:</p> <p>A reduction in the cotton industry's environmental footprint (e.g., reduced pesticide use, improved water use efficiency, reduced greenhouse gas production)</p> <p>Contribution to career opportunities in cotton producing regions</p> <p>At least a 10% reduction in cotton farm-related injuries</p> <p>Improved industry economic viability</p> <p>At least 5 adoption evaluations conducted per year by members of the National Cotton Extension Team</p> | |

STAKEHOLDER R&D PRIORITIES

AUSTRALIAN GOVERNMENT RESEARCH PRIORITIES

In December 2002, the Prime Minister released National Research Priorities under the broad categorisation of:

- An environmentally sustainable Australia
- Promoting and maintaining good health
- Frontier technologies for building and transforming Australian industries
- Safeguarding Australia

Following their release, the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry wrote to the Corporation in March 2003 advising of revised Government priorities for rural research and development:

- Sustainable natural resource management
- Improving competitiveness through a whole of industry approach
- Maintaining and improving confidence in the integrity of Australian agricultural food products
- Improved trade and market access
- Use of frontier technologies
- Protecting Australia from invasive diseases and pests
- Creating an innovative culture

Both sets of Government research priorities have been integrated into the CRDC Strategic Plan 2003–2008 and the Annual Operating Plan 2006–2007. The interaction between Government research priorities and the R&D priorities of the cotton industry are shown in Figure 5, page 13. (Stakeholder Research Priorities)

FIGURE 5
STAKEHOLDER R&D PRIORITIES



ADDRESSING GOVERNMENT RESEARCH PRIORITIES

NATIONAL PRIORITY

An environmentally sustainable Australia

RURAL PRIORITY

Sustainable natural resource management

CRDC programs and strategies addressing these priorities

Program 2—Integrated Natural Resource Management

Program 4—Farming Systems

Program 5—Plant Breeding and Biotechnology

New CRDC Investments

The Corporation will actively seek opportunities to co-invest and work collaboratively on a range of environmental issues with organisations such as the Cotton Catchment Communities CRC and catchment management bodies in both Queensland and New South Wales.

The coming year will see a comprehensive review of the cotton industry's 'Best Management Practices' program, which will include:

- Development of technical information on better managing energy use and greenhouse emissions, gained from current CRDC-funded research
- A review of legal and industry policy positions in regard to BMP guidelines
- A reduction in the information overlap between BMP modules
- An investigation into the viability of including Occupational Health and Safety in BMP
- An investigation into the possibility of linking BMP to other industry environmental management systems, quality assurance programs and catchment management targets.
- Development of processes for more explicit linkages between R&D project outcomes and BMP objectives.

NATIONAL PRIORITY

Promoting and maintaining good health

RURAL PRIORITY

Maintaining and improving confidence in the integrity of Australian agricultural, food, fish and forestry products

CRDC programs and strategies addressing these priorities

Program 1—People and Knowledge
Program 3—Crop Protection
Program 5—Breeding and biotechnology
Program 6—Value Chain

New CRDC Investments

Cotton is a fibre crop, with oil as the only by-product for human consumption. CRDC-funded research has developed plants with higher oleic and stearic acid content – making them 'healthier' – and a business case has been prepared for the potential commercialisation of these products. The coming year will see investigations into the potential commercial opportunities for these by-products.

The development and subsequent commercialisation of insect and herbicide-tolerant varieties of cotton has led to major reductions in the use of insecticides and residual herbicides which has, in turn, a positive impact upon the health and safety of cotton industry workers and communities.

The Corporation plans to maintain its investment in the joint venture Farm Health and Safety R&D program, managed by the Rural Industries Research and Development Corporation.

NATIONAL PRIORITY

Frontier technologies for building and transforming Australian industries

RURAL PRIORITY

Use of frontier technologies

CRDC programs and strategies addressing these priorities

Program 3—Crop Protection
Program 4—Farming Systems
Program 5—Breeding and biotechnology

New CRDC Investments

The cotton industry remains the only major Australian agricultural industry to have successfully introduced the widespread use of biotechnology for both environmental and economic gains, largely thanks to the CRDC-supported CSIRO plant breeding and biotechnology programs.

New CRDC investments in biotechnology for the coming year include further co-investment along with CSIRO and Cotton Seed Distributors (CSD) into the 'CottTech' joint venture, as well as increasing investment into the CSIRO plant breeding and biotechnology programs. Planned outputs from this investment include improving agronomic tolerance, disease tolerance and the development of GM markers for both disease and fibre quality.

NATIONAL PRIORITY

Safeguarding Australia

RURAL PRIORITY

Protecting Australia from invasive diseases and pests

CRDC program and strategies addressing these priorities

Program 3—Crop Protection

New CRDC Investments

The threat posed by cotton's major pest, Helicoverpa, has diminished with the increased uptake of biotechnology in the cotton industry. The Corporation will continue to invest in resistance monitoring and management to ensure that the effectiveness of Bollgard® II technology is maintained. In addition, there will be increased investment into the management of secondary pests – such as aphids, silver leaf white fly and mirids.

Two soil-borne diseases, Fusarium wilt and Black Root Rot, remain particular threats in cotton. In the coming year, the Corporation will continue to invest in the prevention, diagnosis and management of Fusarium wilt, as well as maintaining levels of research on the agronomic management of Black Root Rot.

RURAL PRIORITIES

Improving competitiveness through a whole of industry approach

Improved trade and market access

CRDC programs and strategies addressing these priorities

Program 5—Breeding and biotechnology

Program 6—Value Chain

New CRDC Investments

The nature of the cotton industry value chain means these research priorities are interlinked. The Corporation's research program involves whole-of-industry input through growers, researchers, ginners, marketers and spinners. It aims to identify the various impacts on fabric quality throughout the whole value chain, as well as opportunities to improve quality, both to maintain Australian cotton at the premium end of the market and to differentiate it within that sector.

The coming year will see the continuation of the Australian Government-funded 'Pathways to Environmental Management Systems' project which is developing mechanisms for the expansion of the BMP program along the entire length of the production chain. Further investment will be made in ginning and fibre measurement technologies to improve fibre quality. As well, investigations into the commercialisation of these technologies will lead to an increased and more diverse portfolio of R&D within this important area.

RURAL PRIORITY

Creating an innovative culture

CRDC program and strategies addressing this priority

Program 1—People and Knowledge

New CRDC Investments

The Australian cotton industry has a reputation for the early adoption of research outcomes thanks, in part, to the presence of the unique National Cotton Extension Team. The focus of the coming year will be to further develop the scope and reach of the extension team – this will include the addition of extra team members as well as increased co-ordination and promotion of extension team activities.

The coming year will see the Corporation continue to invest in training and development of cotton industry personnel. This will include investment in the development of the future leaders of tomorrow through the Australian Rural Leadership Program, development and delivery of training courses such as the Integrated Pest Management short-course and Integrated Weed Management course for growers and consultants, further investment in the Australian Government Department of Agriculture Fisheries and Forestry Corporate Governance for Rural Women course and initiate investment in the Australian Government Science and innovation Awards for Young People in Agriculture, Fisheries and Forestry.

THE COMING YEAR

INDUSTRY OUTLOOK

The Australian cotton industry has faced difficult drought conditions in recent seasons which have impacted significantly upon levels of production. However, increased water availability and newly developed regionally specific varieties have seen the yield of the 2005 crop improve significantly. This trend is expected to continue through to the current crop which will be harvested from March to May 2006. Although water availability is still expected to be a constraint on production in the coming year, the continuing effects of low world cotton prices is expected to be the dominant constraining factor. The Corporation is therefore forecasting a total crop of 2 million bales for the 2007 crop.

FIGURE 6
TOTAL COTTON PRODUCTION PER YEAR, 1994-95 TO 2006-07

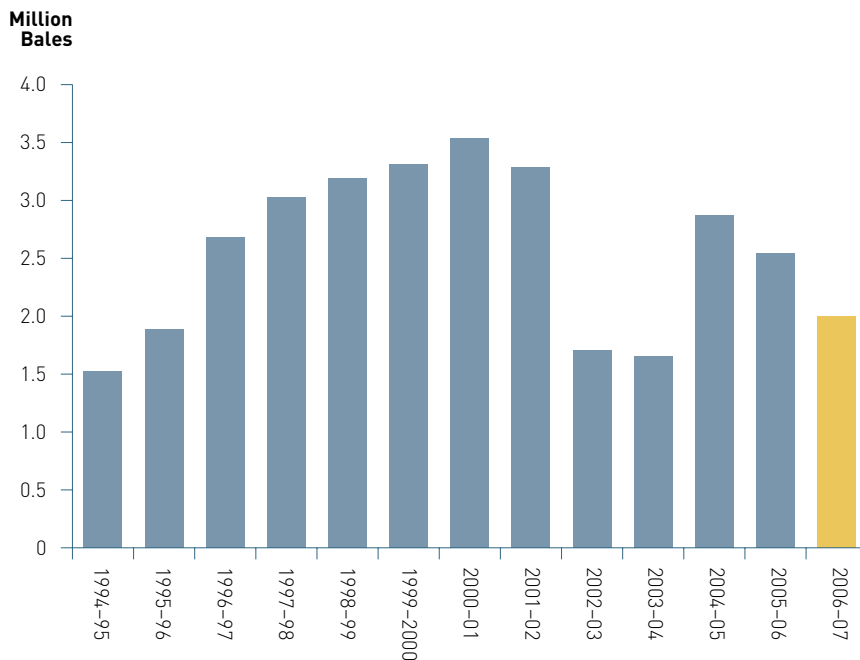


FIGURE 7
AVAILABLE WATER IN QUEENSLAND, FEBRUARY 2006

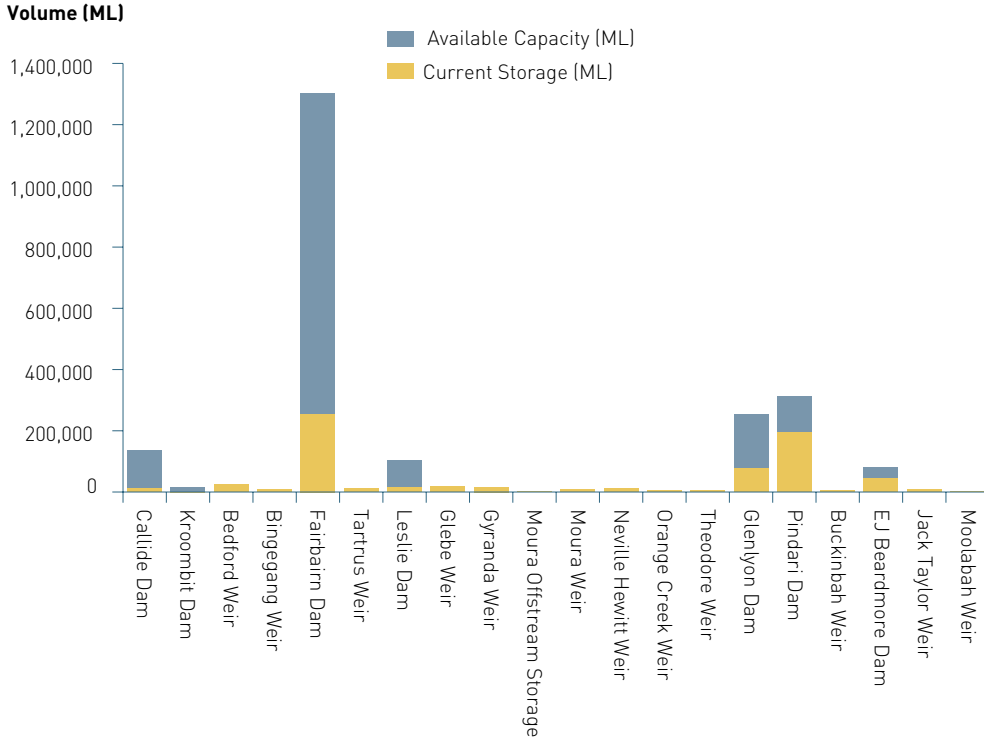
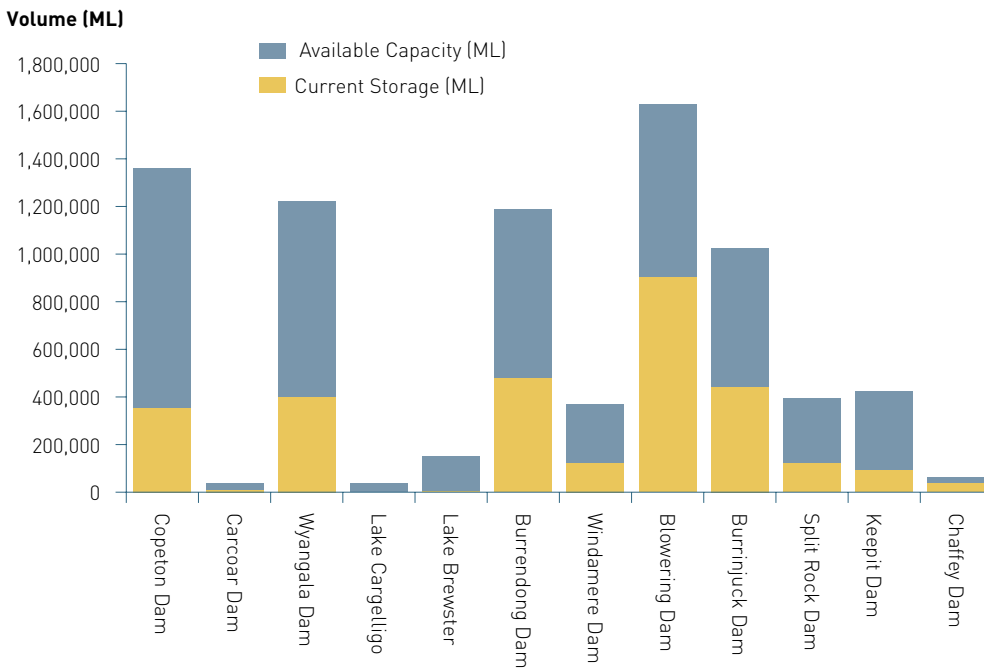


FIGURE 8
AVAILABLE WATER IN NSW, FEBRUARY 2006



FINANCIAL OUTLOOK

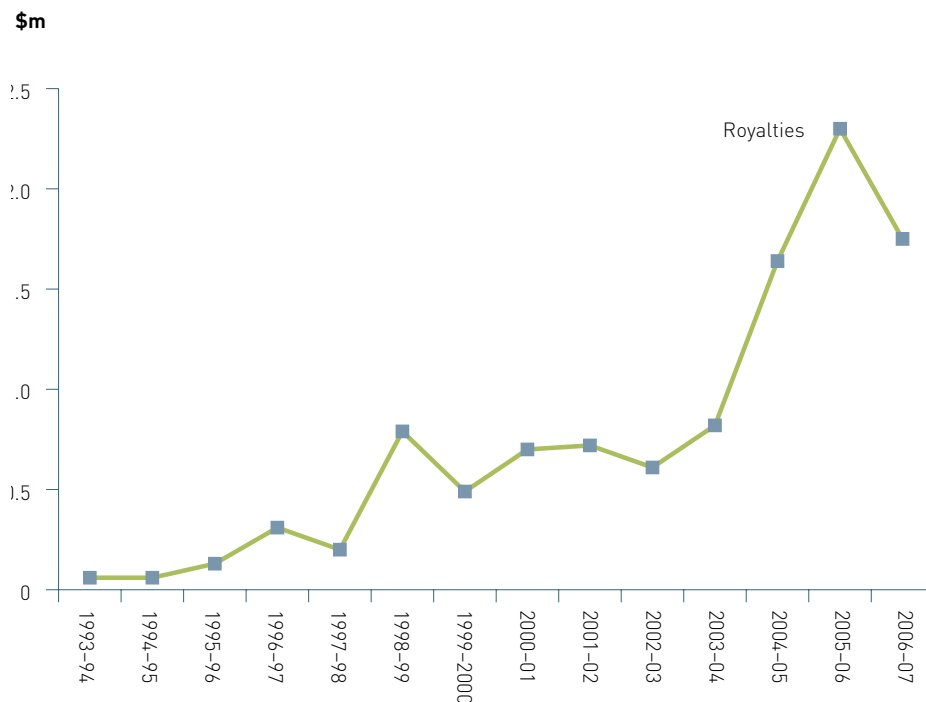
The Corporation is funded by an industry levy of \$2.25 per bale (\$227 kilograms ex-gin) and a matching contribution from the Australian Government, which is provided up to a maximum of 0.5 per cent of the gross value of production (GVP), or up to 50 per cent of expenditure—not exceeding the contribution from grower levies. Royalties from the sale of domestic and international planting seed and interest on investments are the other significant revenue streams for the Corporation.

The 2005–06 crop, harvested March to May 2006, is expected to produce some 2.5 million bales, which is 500,000 bales higher than the Corporation's pre-season forecast. While this will significantly increase bale levy revenue for both 2005–06 and 2006–07, continuing low international cotton prices will have a negative impact on the GVP. The Corporation expects that this will activate a PIERD Act legislative trigger which will limit the Australian Government contribution as described in the paragraph above.

Although drought conditions and low world cotton prices have impacted negatively on production and thus Corporation levy and Commonwealth revenue, royalty income continues to grow as the industry uses plant varieties containing GM technology.

Revenue from plant variety royalties has grown from almost \$0.5m (1999–00) to a forecast of \$2.3m (2005–06). The increased royalty stream has been the impetus to increase total expenditure to \$14.16m in 2006–07 (\$12.87m 2005–06 forecast). This expenditure strategy will continue to be monitored closely to ensure that it remains appropriate.

FIGURE 9
ROYALTY INCOME, 1993–04 TO 2006–07



Constrained levy and Commonwealth contributions result in a total revenue forecast of \$13.23m. Thus an operating deficit of \$0.92m is forecast—this will be funded from the Corporation's reserves.

FIGURE 10
FORECAST REVENUE BY SOURCE

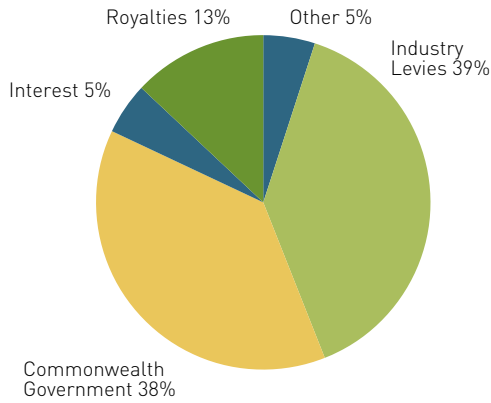


FIGURE 11
FORECAST EXPENDITURE BY TYPE

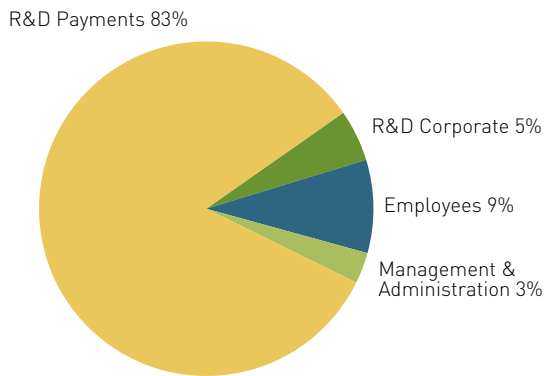


FIGURE 12
FORECAST EXPENDITURE BY PROGRAM

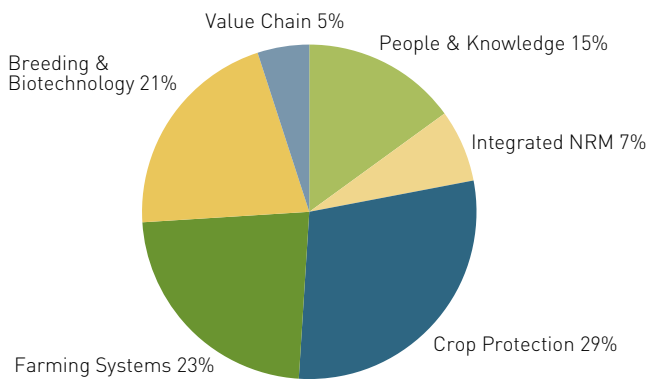
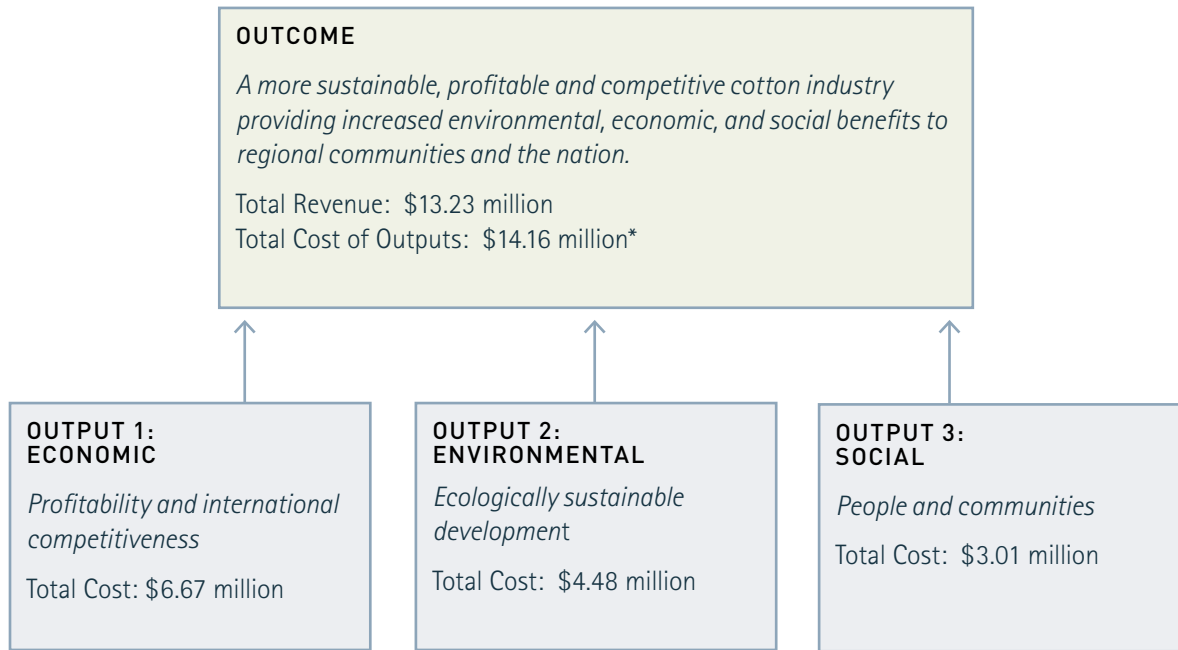


FIGURE 13
FINANCIAL COMMITMENT TO THE TRIPLE BOTTOM LINE OUTCOME AND OUTPUTS



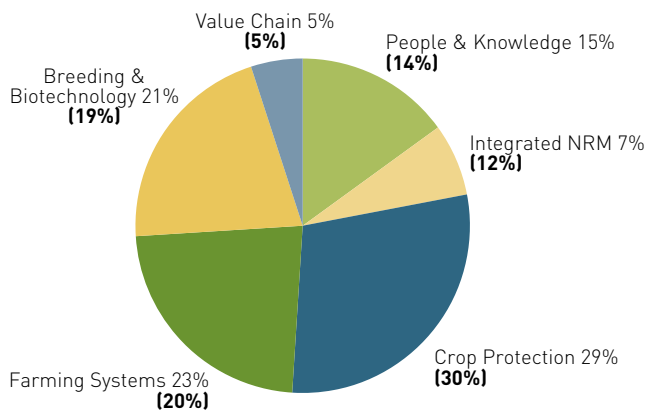
**Total cost is shown rather than total price because the Corporation is primarily funded through industry levies rather than on the basis of the price of their Outputs. It should be noted that the CRDC will use its accumulated reserves to fund the difference between total revenue and the total costs of outputs.*

PLANNED R&D INVESTMENTS

In order to ensure that the strategies and the measures of success contained in the current strategic plan are still of relevance to both industry and Government, and to measure progress made against these measures over the past 12 months, the Corporation, its industry stakeholder (the Australian Cotton Growers Research Association (ACGRA)), and other key cotton industry and government personnel reviewed the plan in February 2006. The outcome of this review was a range of updated priorities which are being used to guide the R&D investment portfolio for the coming year.

The Corporation has allocated an investment of \$11.08 million, including commissioned research, to the Corporation's six R&D programs. The Board has also set aside an amount for contingencies to allow urgent projects to proceed without delay should an emergency situation arise.

FIGURE 14
% SPLIT PER PROGRAM AND ITS VARIANCE ON LAST YEAR
2006-07 BUDGETED & 2005-06 ACTUAL (IN BRACKETS)



PROGRAM 1—PEOPLE AND KNOWLEDGE

INPUT

\$1.69 million

Represents 15 per cent of total R&D expenditure

OBJECTIVE

Improving the capacity of industry and the community to use the knowledge and innovations gained through research and development. A continuing culture of innovation in the cotton industry, which creates viable rural communities

OUTCOME

Innovative people in the cotton industry and community, creating a sustainable industry and viable regional communities

| STRATEGIES | MEASURE OF SUCCESS |
|---|---|
| Support and coordinate a highly trained, efficient and effective cotton extension team | Evaluation of outcomes of activities conducted by the extension team |
| Foster the professional development of innovative and highly trained researchers, extension and technical officers, administrators, consultants and growers | Evidence of improved skills and qualifications of researchers, extension and technical personnel, administrators, consultants and growers |
| Foster the development of opportunities for women in the cotton industry | Women in key industry roles |
| Continue to develop a variety of effective decision support systems that support the implementation of research and extension outcomes and shorten the time to adoption | Evidence that the use of decision support systems is leading to the adoption of research outcomes and improved practices |
| Support the on-going development of information packages and tools that consolidate and disseminate research outcomes | Evidence that the use of information packages and tools is leading to the adoption of research outcomes and improved practices |
| Promote safe, healthy workplaces through the adoption of appropriate Occupational Health and Safety work practices | The OH&S performance of industry workplaces is improving |
| Facilitate effective coordination and partnerships with research and development providers, industry and community organisations | Implementation of outcomes in partnership with a variety of research and development providers |

Background

The success of the cotton industry in Australia can be attributed to a combination of factors, one of which is undoubtedly the capacity and the capability of its workforce and communities to continually improve and to acquire new skills and knowledge. Supporting people to conduct the research and transfer the outcomes remains a high priority for the Corporation for the coming year which will see further implementations of the recommendations from the 2005 *Review of Extension and Training in the Cotton Industry*.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENTS |
|--|--|
| Support and coordinate a highly trained, efficient and effective cotton extension team | <p>Further develop the scope and reach of the extension team – this will include the addition of extra team members as well as increased co-ordination and promotion of extension team activities</p> <p>Provide funds from the Corporation's Commissioned R&D budget for further implementation of the outcomes of the 2005 <i>Review of Extension and Training</i> and coordination through the Cotton CRC</p> <p>Adopt key outputs from the Cooperative Venture for Capacity Building which is managed by the Rural Industries R&D Corporation and involves several other R&D Corporations</p> |
| <p>Foster the professional development of innovative and highly trained researchers, extension and technical officers, administrators, consultants and growers</p> <p>A continually improving culture of innovation and increased skill level in scientists, advisers and growers</p> | <p>Continue to invest in a cotton training coordinator to develop and support a range of training activities</p> <p>Provide funding towards a cotton industry scholarship in the Australian Rural Leadership Program</p> <p>Contribute towards the Australian Government Science and innovation Awards for Young People in Agriculture, Fisheries and Forestry</p> <p>Contribute towards scholarships and international scientific exchanges</p> <p>Fund new post-graduate and post-doctoral positions and provide opportunities for new and existing scholarship holders to upgrade knowledge and skills in areas such as report writing, communications and intellectual property management</p> |
| Foster the development of opportunities for women in the cotton industry | <p>Continue to provide project assistance to Wincott (Women in Cotton). Network and facilitate the involvement of Wincott members in industry developments through the provision of in-kind support</p> <p>Encourage industry groups, such as local Cotton Growers Associations, to access industry development grant funding for projects relating to the development of women</p> <p>Sponsor a cotton industry participant in the Australian Government Department of Agriculture, Fisheries and Forestry Industry Partnerships – Corporate Governance Program</p> |
| <p>Continue to develop a variety of effective decision support systems that support the implementation of research and extension outcomes to shorten the time to adoption</p> <p>Support the on going development of information packages and tools that consolidate and disseminate research outcomes</p> | <p>Review priorities and direction of investments in the Decision Support Program in response to the objectives of the Decision Support Business Plan developed through the Cotton CRC</p> <p>Support for the development of FIBREpak</p> <p>Further development and enhancement of the BMP manual in response to the <i>2006 BMP Manual Revision Study</i></p> |
| Promote safe, healthy workplaces through the adoption of appropriate Occupational Health and Safety work practices | <p>Development of Spray Drift Management and Prevention training course in conjunction with the Grains Research and Development Corporation</p> <p>Continued investment in the joint venture Farm Health and Safety R&D program, managed by the Rural Industries Research and Development Corporation; and continue support for 'Sustainable Farm Families' project</p> <p>Investigate the viability of including Occupational Health and Safety in BMP</p> |

PROGRAM 2—INTEGRATED NATURAL RESOURCE MANAGEMENT

INPUT

\$0.77 million

Represents 7 per cent of total R&D expenditure

OBJECTIVE

Improved delivery of research, knowledge and management strategies related to natural resources that enhance the ecological, social and economic values associated with cotton production systems, both on and off farm, and reduce negative environmental impacts

OUTCOME

Increased ecosystem health, community wellbeing and economic wealth of cotton growing regions and a reduction in the negative environmental impacts of cotton production systems

| STRATEGIES | MEASURE OF SUCCESS |
|--|--|
| Incorporate a broader range of environmental issues in the Cotton BMP program, and facilitate their adoption | Increased adoption and broader environmental coverage of the Cotton BMP program |
| Investigate and evaluate environmental management systems as an industry-led approach to improved natural resource management | An evaluation of environmental management systems as a farm and natural resource management tool |
| Support multi-disciplinary approaches to developing farm management strategies that complement catchment and landscape outcomes in relation to salinity, water quality and quantity, and biodiversity | Improved trends in landscape and catchment indicators such as salinity, water quality and biodiversity. Project and funding links with other catchment and landscape programs related to biophysical targets and sustainability. Improved perception of cotton production by the community |
| Facilitate the necessary environmental impact research for any new transgenic traits introduced into cotton varieties | Publication of refereed environmental impact research in scientific journals related to new transgenic traits |
| Investigate the potential impact of climate change on cotton production, benchmark the industry's contribution to greenhouse gas emissions, energy use, and develop integrated management strategies to reduce emissions | Benchmarked greenhouse gas emissions, energy use and potential climate change impacts |

Background

There is little doubt that innovations in research and development have brought about a new era of environmental standards and performance in the Australian cotton industry. Natural Resource Management has been a major strategic focus for the Corporation over recent years, with an increased R&D effort in a range of areas from field to catchment scale. It is this approach, coupled with willingness by growers to adopt new technologies and new practices, which has lead to far reaching improvements in pesticide use and pest management, as well as improvements in water use, vegetation and land management, waste recycling and disposal, wildlife management and biodiversity. The coming year sees a renewed focus on the integration of the cotton industry's Best Management Practices (BMP) program with related NRM and farm management R&D outcomes.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENTS |
|--|--|
| <p>Investigate and evaluate environmental management systems as an industry-led approach to improved natural resource management</p> <p>Incorporate a broader range of environmental issues in the Cotton BMP program, and facilitate their adoption</p> | <p>A comprehensive review of the cotton industry's 'Best Management Practices' program will include:</p> <ul style="list-style-type: none"> • Development of technical information on better managing energy use and greenhouse emissions, gained from current CRDC-funded research • A review of legal and industry policy positions in regard to BMP guidelines • A reduction in the information overlap between BMP modules • An Investigation into the viability of including Occupational Health and Safety in BMP • An investigation into the possibility of linking BMP to other industry environmental management systems, quality assurance programs and catchment management targets • Development of processes for more explicit linkages between R&D project outcomes and BMP objectives |
| <p>Support multi-disciplinary approaches to developing farm management strategies that complement catchment and landscape outcomes in relation to salinity, water quality and quantity, and biodiversity</p> | <p>Increased investment in research into understanding deep drainage and its implications for soil salinity, water quality and water allocations in relation to environmental flows</p> |
| <p>Facilitate the necessary environmental impact research for any new transgenic traits introduced into cotton varieties</p> | <p>Continue to monitor the environmental performance of Bollgard® II</p> <p>Establish the capability to monitor the performance of Roundup Ready Flex</p> |
| <p>Investigate the potential impact of climate change on cotton production, benchmark the industry's contribution to greenhouse gas emissions, energy use, and develop integrated management strategies to reduce emissions</p> | <p>Continued investment into benchmarking and reducing greenhouse gas emissions and improving resource use efficiency including the potential to incorporate improved management practices into the BMP manual</p> |

PROGRAM 3—CROP PROTECTION

INPUT

\$3.12 million
Represents 29 per cent of total R&D expenditure

OBJECTIVE

Improved integrated management of major pests, weeds and diseases, reflected by continued reductions in chemical insecticide and residual herbicide inputs to crops, and responsible management of transgenic technology

OUTCOME

Continued reduced reliance on chemical inputs and more effective management strategies for pests, weeds and diseases

STRATEGIES

MEASURES OF SUCCESS

| | |
|---|---|
| Improve integrated non-chemical and chemical management of insect and mite pests | Evaluations on the adoption and outcomes of integrated practices, products and technologies, which improve returns, use less chemicals, reduce on and off site environmental impacts as well as any social outcomes |
| Improve integrated non-chemical and chemical management of weeds | Evaluations on the adoption and outcomes of integrated practices, products and technologies, which improve returns, use less chemicals, reduce on and off site environmental impacts as well as any social outcomes |
| Develop practices and technologies that reduce the spread and impact of cotton diseases | Reduced distribution, presence and impact of diseases |
| Ensure the development of resistance is minimised through the design and implementation of resistance management strategies for both insecticides and transgenic technologies | Monitor resistance levels with an aim to either avoid or keep resistance levels in pests and weeds at manageable levels |
| Ensure the benefits of transgenic crop technology are maximised through responsible management based on sound scientific risk assessment | Transgenic crop surveys and reports on performance, management and risk assessment |

Background

The Australian cotton industry was the first agricultural industry in this country to move successfully to the commercial use of biotechnology. This has seen the dawn of a new era for crop protection throughout the industry, but has also seen the emergence of new challenges and new opportunities which need to be addressed through a sustained and targeted R&D effort. The coming year will see a change in focus from the management of traditional cotton pests, to secondary pests such as silverleaf whitefly and mirids, as well as a sustained focus on the control of Fusarium wilt and Black Root Rot. The 2006 cotton season will also see the introduction of the much anticipated Roundup Ready Flex – an improved version of Roundup Ready glyphosate-tolerant cotton varieties which will allow more flexibility in weed control due to a broader window for Roundup application.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENT |
|--|--|
| <p>Improve integrated non-chemical and chemical management of insect and mite pests</p> <p>Ensure the development of resistance is minimised through the design and implementation of resistance management strategies for both insecticides and transgenic technologies</p> <p>Ensure the benefits of transgenic crop technology are maximised through responsible management based on sound scientific risk assessment</p> | <p>Increased focus on the development of integrated pest management techniques for secondary pests, including mirids, silverleaf whitefly and aphids</p> <p>Continue levels of investment in resistance monitoring and understanding of resistance mechanisms for conventional chemistry and Bollgard® II</p> <p>Continue research into the development of improved refuge options and management for Bollgard® II</p> |
| <p>Improve integrated non-chemical and chemical management of weeds</p> | <p>Development of Integrated Weed Management training course in conjunction with the Weeds CRC</p> <p>New research into weed control and herbicide application for Roundup Ready Flex</p> <p>Further development of weed management strategies for key problem weeds in the cotton /grains farming systems</p> |
| <p>Develop practices and technologies that reduce the spread and impact of cotton diseases</p> | <p>Increased investment in support for research on the prevention, diagnosis and management of Fusarium wilt</p> <p>Maintain levels of research on agronomic management strategies for Black Root Rot</p> |

PROGRAM 4—FARMING SYSTEMS

INPUT

\$2.56 million

Represents 23 per cent of total R&D expenditure

OBJECTIVE

Integrated farm management practices that enhance the sustainability and profitability of cotton farming systems

OUTCOME

A more sustainable and profitable cotton farming system

| STRATEGIES | MEASURE OF SUCCESS |
|---|--|
| Improve water use efficiency on farms using existing and new infrastructure, new tools and technologies | Increased yield per hectare and per megalitre of water; Improved water use efficiency on farms |
| Understand salinity, sodicity and deep drainage on farms and develop appropriate farm management strategies to minimise these potential negative processes | Adoption of integrated management options for salinity and sodicity |
| Strengthen our understanding of soil health and improve crop nutrition management | Benchmark of soil health characteristics and optimise crop nutrition management |
| Increase profitability with better whole farm management strategies and innovative precision agricultural systems | Improved economic returns to farmers; Data on changed farming practices including the economic, environmental or social benefits |
| Continue fundamental research on cotton agronomy and plant physiology and explore the interactions of different components for both conventional and transgenic varieties | Publication of cotton research related to crop physiology and transfer of agronomic knowledge into other research and extension project outcomes |

Background

To achieve genuine 'triple bottom line' sustainability, the Australian cotton industry must maintain economic viability for growers through sustainable farming systems. Over recent years, costs of inputs have continued to rise, and it is only with the introduction of new GM varieties and integrated management systems such as those for pests, soils and weeds that the costs of chemical inputs have begun to decline. That said, the ever increasing costs of land, water, machinery and labour coupled with prevailing drought and declining global prices, mean that the gap between income and expenses remains under pressure. The coming year will see further investment from the Corporation in R&D which will drive profits and improve the bottom line for growers and the wider industry.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENT |
|--|--|
| <p>Improve water use efficiency on farms using existing and new infrastructure, new tools and technologies</p> | <p>Significantly increase investment in water use efficiency practices and technologies by seeking to establish an irrigation program delivered through the Cotton CRC. This program will be targeted at whole farm water use efficiency and profitability with more direct linkages to BMP</p> <p>Further investment in the activities of the Water Extension Team</p> |
| <p>Understand salinity, sodicity and deep drainage on farms and develop appropriate farm management strategies to minimise these potential negative processes</p> | <p>Maintain investment levels towards investigations into deep drainage, its farm and catchment scale implications and practical management techniques to minimise its impacts</p> |
| <p>Strengthen our understanding of soil health and improve crop nutrition management</p> | <p>Co-investment in Healthy Soils for Sustainable Farms Program in conjunction with a number of Catchment Management Authorities through the Cotton CRC</p> <p>Provide investment to implement recommendations from the 2005 Soil Biology Growers Survey and Research Review</p> |
| <p>Increase profitability with better whole farm management strategies and innovative precision agricultural systems</p> | <p>Maintain investment in the development of an annual Farming Systems Forum to discuss an area of current importance to both growers and researchers. Continue to facilitate Regional Farming Systems Forums in a number of cotton growing districts</p> <p>In conjunction with the Cotton CRC and other industry bodies, support the establishment of a Farming Systems Scientist/ Extension Officer to provide leadership and integration of farming systems R&D in irrigated cotton and grain areas</p> <p>Support the development of improved extension and training programs for precision agriculture</p> |
| <p>Continue fundamental research on cotton agronomy and plant physiology and explore the interactions of different components for both conventional and transgenic varieties</p> | <p>Continue to investigate agronomic requirements for Bollgard® II varieties with particular reference to nutrition and water needs</p> <p>Instigate research into the agronomic requirements for Roundup Ready Flex</p> |

PROGRAM 5—PLANT BREEDING AND BIOTECHNOLOGY

INPUT

\$2.36 million
Represents 21 per cent of total R&D expenditure

OBJECTIVE

World leading cotton varieties displaying continuous improvement in cotton yield, quality and agronomic performance through plant breeding and biotechnology innovations

OUTCOME

Continually improving cotton varieties

STRATEGIES

MEASURES OF SUCCESS

Develop regionally adapted cotton varieties exhibiting improved yield, quality, insect and disease resistance and herbicide tolerance

Evidence that new cotton varieties are increasing yields and potential returns to the industry

Evidence that new varieties can produce higher yields with lower inputs of chemicals and improved water use efficiency

Targeted, innovative biotechnology focused on solving production and quality constraints confronting the Australian cotton industry

Evidence that CRDC's biotechnology investments are delivering industry or community benefits

Reduction in time required to introduce improved or novel genes into elite cotton varieties through the development of frontier technologies, without compromising scientific rigour

Evidence of the reduced time to introduce genes into cotton varieties

Continuous monitoring of the signals from cotton textile and oilseed marketplace to ensure Australian varieties maintain a place at the high quality end of the market

Market reports on the demand for Australian cotton lint and seed

Background

The CSIRO breeding team continues to provide the Australian cotton industry with new varieties displaying higher yield and quality as well as improved insect and disease tolerance and herbicide resistance. The industry's return on investment from improvements through plant breeding has been impressive. The contributions made through biotechnology is expected to continue.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENTS |
|--|---|
| Develop regionally adapted cotton varieties exhibiting improved yield, quality, insect and disease resistance and herbicide tolerance | Increase co-investment with CSIRO Plant Industry Breeding Team to address issues such as water logging and Fusarium wilt disease tolerance as well as the key areas of yield and quality improvement |
| Targeted, innovative biotechnology focused on solving production and quality constraints confronting the Australian cotton industry | Investment in the development of GM markers for disease and fibre quality Further investment, in conjunction with CSIRO, in double haploid research Implementation of the recommendations of the <i>2006 Review of Fibre R&D</i> |
| Reduction in time required to introduce improved or novel genes into elite cotton varieties through the development of frontier technologies, without compromising scientific rigour | Continued investment in the 'CottTech' joint venture with CSIRO and Cotton Seed Distributors (CSD). |
| Continuous monitoring of the signals from cotton textile and oilseed marketplace to ensure Australian varieties maintain a place at the high quality end of the market | Continue to support the Australian Cotton Shippers Association (ACSA) report on crop quality against internal market demands Maintain levels of support into the assessment of contamination levels in Australian cotton Further support the dissemination and review of results of 2004 International Mill Survey Investments addressing this strategy can also be found in program 6 'Value Chain' |

PROGRAM 6—VALUE CHAIN

INPUT

\$0.55 million

Represents 5 per cent of total R&D expenditure

OBJECTIVE

To produce high quality consumer preferred cotton and develop new international and domestic market opportunities

OUTCOME

High quality consumer preferred Australian cotton in the world marketplace

| STRATEGIES | MEASURE OF SUCCESS |
|--|---|
| A breeding program that releases varieties with high quality fibre characteristics, which satisfy consumer demand trends. To investigate the use of biotechnology to enhance other traits, for example, nutritionally improved cottonseed oil | Release of varieties with appropriate fibre and seed characteristics |
| To promote agronomic and management practices, including the Cotton BMP program, which preserve and protect optimal fibre quality characteristics | Evidence of improved practices that preserve fibre quality. Extension of the Cotton BMP program to post farm gate issues |
| Ginning improvements resulting from research to reduce nep generation and to preserve desirable fibre qualities | Improved ginning practice measured by ginning data |
| The development of more accurate and repeatable technology of fibre measurement for neps, fineness, maturity and other fibre characteristics. Support changes to the traditional classing system, which better identifies and rewards superior fibre characteristics | Proportion of the crop objectively measured by High Volume Instrument (HVI) increased. Release of new fibre measurement technology |
| To support efforts to develop new markets and high premiums for Australian raw cotton as well as value adding cotton in Australia | Number of unsold stocks accumulated and increased relative premium of Australian cotton compared to competitors. Demonstration of value added developments in Australia |

Background

Australian cotton continues to compete at the premium end of the world market. It has achieved this through Australian varieties that produce cotton fibre with the strength, length, fineness and maturity sought by spinners. Combine these with excellent agronomic practices producing consistent high quality and efficient ginning and shipping systems that deliver cotton on time. The coming year sees a substantial increase in funding for this program which reflects the increasing importance of improving and maintaining fibre quality and adding value to cotton and its by-products.

Planned R&D Investments

| STRATEGIES | PLANNED R&D INVESTMENTS |
|--|---|
| <p>A breeding program that releases varieties with high quality fibre characteristics, which satisfy consumer demand trends. To investigate the use of biotechnology to enhance other traits, for example, nutritionally improved cottonseed oil</p> | <p>See Program 5 for investments relating to biotechnology and fibre quality</p> <p>Further investment in the development of commercial opportunities for modified 'healthier' cotton seed oil</p> |
| <p>To promote agronomic and management practices, including the Cotton BMP program, which preserve and protect optimal fibre quality characteristics</p> | <p>Continuation of Australian Government Environmental Management Systems (EMS) pathways project which will develop Best Management practice guidelines for post farm gate processes</p> <p>Strengthening linkages between R&D outcomes and BMP objectives.</p> |
| <p>Ginning improvements resulting from research to reduce nep generation and to preserve desirable fibre qualities</p> <p>The development of more accurate and repeatable technology of fibre measurement for neps, fineness, maturity and other fibre characteristics. Support changes to the traditional classing system, which better identifies and rewards superior fibre characteristics</p> | <p>Increased investment in the development of new ginning technology</p> <p>Maintain investment in the development of systems for accurate measurement of fibre maturity, including the development of commercial opportunities for Cottonscan and SiroMat</p> |
| <p>To support efforts to develop new markets and high premiums for Australian raw cotton as well as value adding cotton in Australia</p> | <p>Continuation of Australian Government EMS pathways project which will explore potential new market opportunities for branded Australian cotton</p> |

FINANCIAL STATEMENTS

BUDGETED INCOME STATEMENT FOR THE PERIOD ENDED 30 JUNE

| | Estimated actual 2005-06 \$'000 | Budget estimate 2006-07 \$'000 | Forward estimate 2007-08 \$'000 | Forward estimate 2008-09 \$'000 | Forward estimate 2009-10 \$'000 |
|---|--|---|--|--|--|
| INCOME | | | | | |
| Revenue | | | | | |
| Revenues from Government | 11,133 | 10,110 | 8,792 | 8,445 | 8,445 |
| Goods and services | | | | | |
| Interest | 700 | 660 | 660 | 660 | 660 |
| Rents | 7 | 15 | 15 | 15 | 15 |
| Royalties | 2,300 | 1,750 | 1,750 | 1,750 | 1,750 |
| Other | 656 | 700 | 470 | 470 | 470 |
| Total revenue | 14,796 | 13,235 | 11,687 | 11,340 | 11,340 |
| Total income | 14,796 | 13,235 | 11,687 | 11,340 | 11,340 |
| EXPENSE | | | | | |
| Employees | 1,213 | 1,270 | 1,321 | 1,374 | 1,429 |
| Suppliers | 376 | 342 | 352 | 361 | 373 |
| Grants | 11,251 | 12,454 | 11,710 | 10,884 | 9,940 |
| Depreciation and amortisation | 29 | 93 | 113 | 128 | 78 |
| Total expenses | 12,869 | 14,159 | 13,496 | 12,747 | 11,820 |
| Net surplus or (deficit) attributable to the Australian Government | 1,927 | -924 | -1,809 | -1,407 | -480 |

BUDGETED BALANCE SHEET AS AT 30 JUNE

| | Estimated actual 2005-06 \$'000 | Budget estimate 2006-07 \$'000 | Forward estimate 2007-08 \$'000 | Forward estimate 2008-09 \$'000 | Forward estimate 2009-10 \$'000 |
|--|--|---|--|--|--|
| ASSETS | | | | | |
| Financial assets | | | | | |
| Cash | 12,891 | 12,004 | 10,175 | 8,740 | 8,235 |
| Receivables | 2,083 | 2,075 | 2,080 | 2,080 | 2,080 |
| Accrued revenues | 219 | 200 | 200 | 200 | 200 |
| Other | | | | | |
| Total financial assets | 15,193 | 14,279 | 12,455 | 11,020 | 10,515 |
| Non-financial assets | | | | | |
| Land and buildings | 356 | 380 | 385 | 390 | 396 |
| Infrastructure, plant and equipment | 141 | 221 | 202 | 177 | 155 |
| Total non-financial assets | 497 | 601 | 587 | 567 | 551 |
| Total assets | 15,690 | 14,880 | 13,042 | 11,587 | 11,066 |
| LIABILITIES | | | | | |
| Provisions | | | | | |
| Employees | 175 | 186 | 196 | 205 | 216 |
| Total provisions | 175 | 186 | 196 | 205 | 216 |
| Payables | | | | | |
| Suppliers | 75 | 80 | 80 | 80 | 80 |
| Grants | 605 | 703 | 664 | 607 | 555 |
| Total payables | 680 | 783 | 744 | 687 | 635 |
| Total liabilities | 855 | 969 | 940 | 892 | 851 |
| EQUITY* | | | | | |
| Parent entity interest | | | | | |
| Reserves | 30 | 30 | 30 | 30 | 30 |
| Retained surpluses or accumulated deficits | 14,805 | 13,881 | 12,072 | 10,665 | 10,185 |
| Total parent entity interest | 14,835 | 13,911 | 12,102 | 10,695 | 10,215 |
| Total equity | 14,835 | 13,911 | 12,102 | 10,695 | 10,215 |
| Current assets | 15,193 | 14,279 | 12,455 | 11,020 | 10,515 |
| Non-current assets | 497 | 601 | 587 | 567 | 551 |
| Current liabilities | 845 | 959 | 930 | 882 | 841 |
| Non-current liabilities | 10 | 10 | 10 | 10 | 10 |

*Note: 'equity' is the residual interest in assets after deduction of liabilities.

BUDGETED STATEMENT OF CASH FLOWS FOR THE PERIOD ENDED 30 JUNE

| | Estimated actual 2005-06 \$'000 | Budget estimate 2006-07 \$'000 | Forward estimate 2007-08 \$'000 | Forward estimate 2008-09 \$'000 | Forward estimate 2009-10 \$'000 |
|--|--|---|--|--|--|
| OPERATING ACTIVITIES | | | | | |
| Cash received | | | | | |
| Goods and services | | | | | |
| Appropriations | 11,307 | 10,128 | 8,792 | 8,445 | 8,445 |
| Interest | 813 | 679 | 660 | 660 | 660 |
| Dividends | | | | | |
| Other | 4,197 | 3,725 | 3,440 | 3,365 | 3,271 |
| Total cash received | 16,317 | 14,532 | 12,892 | 12,470 | 12,376 |
| Cash used | | | | | |
| Employees | 1,207 | 1,260 | 1,311 | 1,364 | 1,419 |
| Suppliers | 380 | 336 | 352 | 361 | 373 |
| Grants | 11,904 | 12,357 | 11,749 | 10,941 | 9,991 |
| Financing costs | | | | | |
| Other | 1,290 | 1,269 | 1,210 | 1,130 | 1,036 |
| Total cash used | 14,781 | 15,222 | 14,622 | 13,796 | 12,819 |
| Net cash from or (used by) operating activities | 1,536 | -690 | -1,730 | -1,326 | -443 |
| INVESTING ACTIVITIES | | | | | |
| Cash received | | | | | |
| <i>Total cash received</i> | - | - | - | - | - |
| Cash used | | | | | |
| Purchase of property, plant and equipment | 64 | 197 | 99 | 109 | 62 |
| Total cash used | 64 | 197 | 99 | 109 | 62 |
| Net cash from or (used by) investing activities | -64 | -197 | -99 | -109 | -62 |
| FINANCIAL ACTIVITIES | | | | | |
| Cash received | | | | | |
| <i>Total cash received</i> | - | - | - | - | - |
| Cash used | | | | | |
| <i>Total cash used</i> | - | - | - | - | - |
| Net cash from or (used by) financing activities | - | - | - | - | - |
| Net increase or (decrease) in cash held | 1,472 | -887 | -1,829 | -1,435 | -505 |
| Cash at the beginning of the reporting period | 11,419 | 12,891 | 12,004 | 10,175 | 8,740 |
| Cash at the end of the reporting period | 12,891 | 12,004 | 10,175 | 8,740 | 8,235 |

STATEMENT OF CHANGES IN EQUITY – SUMMARY OF MOVEMENT 2006–07

| | Accumulated results \$'000 | Asset revaluation reserve \$'000 | Other reserves \$'000 | Contributed equity/ capital \$'000 | Total equity \$'000 |
|--|----------------------------------|---|-----------------------------|---|---------------------------|
| Opening balance as at 1 July 2006 | | | | | |
| Balance carried forward from previous period | 14,805 | 30 | | | 14,835 |
| Adjustment for changes in accounting policies | | | | | |
| Adjusted opening balance | 14,805 | 30 | - | - | 14,835 |
| Income and expense | | | | | |
| Income and expenses recognised directly in equity: | | | | | |
| Gain/loss on revaluation of property | | | | | |
| Sub-total income and expense | - | - | - | - | - |
| Net operating result | -924 | | | | - 924 |
| Total income and expenses recognised directly in equity | -924 | | | | -924 |
| Transactions with owners | | | | | |
| Transfers between equity components | - | - | - | - | - |
| Estimated closing balance as at 30 June 2007 | 13,881 | 30 | - | - | 13,911 |

CAPITAL BUDGET STATEMENT FOR THE PERIOD ENDED 30 JUNE

| | Estimated actual 2005-06 \$'000 | Budget estimate 2006-07 \$'000 | Forward estimate 2007-08 \$'000 | Forward estimate 2008-09 \$'000 | Forward estimate 2009-10 \$'000 |
|---|--|---|--|--|--|
| PURCHASE OF NON-FINANCIAL ASSETS | | | | | |
| Funded by capital appropriation | | | | | |
| Funded internally by | | | | | |
| Departmental resources | 64 | 197 | 99 | 109 | 62 |
| Total | 64 | 197 | 99 | 109 | 62 |

NON-FINANCIAL ASSETS – SUMMARY OF MOVEMENT 2006-07

| | Land | Buildings | Other infrastruct- ure plant and equipment | Total |
|---|------------|------------|--|------------|
| | \$'000 | \$'000 | \$'000 | \$'000 |
| As at 1 July 2006 | | | | |
| Gross book value | 100 | 255 | 141 | 496 |
| Accumulated depreciation | | | | - |
| Opening net book value | 100 | 255 | 141 | 496 |
| Additions: | | | | |
| by purchase | | 32 | 165 | 197 |
| Revaluations and impairment through equity | | | | - |
| Reclassifications | | | | - |
| Depreciations/amortisation expenses | | 7 | 86 | 93 |
| Impairments recognised in operating result | | | | - |
| Other movements | | | | - |
| Disposals: | | | | |
| from disposal of entities or operations (including restructuring) | | | | - |
| other disposals | | | | - |
| | 100 | 280 | 220 | 600 |
| As at 30 June 2007 | | | | |
| Gross book value | 100 | 287 | 306 | 693 |
| Accumulated depreciation | | -7 | -86 | -93 |
| Estimated closing net book value | 100 | 280 | 220 | 600 |

ACRONYMS

CRDC aims to minimise the use of acronyms or technical terms, or to explain their meaning in context. The following is a list of acronyms and technical terms used in the cotton industry that may appear in this publication

| | |
|------------------|--|
| AAAA | Aerial Agricultural Association of Australia |
| ABARE | Australian Bureau of Agricultural and Resource Economics |
| ACC | Australian Cotton Centre |
| ACGRA | Australian Cotton Growers' Research Association |
| ACIC | Australian Cotton Industry Council |
| ACIPA | Australian Centre for Intellectual Property in Agriculture |
| ACCRC | Australian Cotton Cooperative Research Centre (also Cotton CRC) |
| ACRI | Australian Cotton Research Institute (located near Narrabri, NSW) |
| ACSA | Australian Cotton Shippers Association |
| AFFA | Agriculture Fisheries and Forestry – Australia. Now the Australian Government Department of Agriculture, Fisheries and Forestry |
| ANAO | Australian National Audit Office |
| APVMA | Australian Pesticides and Veterinary Medicines Authority, formerly the National Registration Authority for Agricultural and Veterinary Chemicals |
| ARLP | Australian Rural Leadership Program |
| ARRIP | Australian Agricultural Research in Progress database |
| AWA | Agriculture Western Australia (Department of) |
| AWM | Area Wide Management |
| Bollgard® II | Cotton varieties contain two genes resistant to <i>Helicoverpa</i> spp. |
| BMP | Best Management Practice |
| BRS | Bureau of Rural Sciences |
| Bt | <i>Bacillus thuringiensis</i> (crystal protein gene expressed in INGARD® and Bollgard® II cotton varieties) |
| CAC Act | <i>Commonwealth Authorities and Companies Act 1997</i> |
| CCA | Cotton Consultants Australia Inc. |
| Cotton CRC | Australian Cotton Cooperative Research Centre |
| CCC CRC | Cotton Catchments Communities Cooperative Research Centre |
| CRC | Cooperative Research Centre |
| corporation, the | Cotton Research and Development Corporation |
| CRDC | Cotton Research and Development Corporation |
| CSD | Cotton Seed Distributors Ltd (a grower-owned cooperative) |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation |
| department, the | refers to the Australian Government Department of Agriculture, Fisheries and Forestry |
| DIPNR | Department of Infrastructure, Planning and Natural Resources, New South Wales |

| | |
|-----------------|---|
| DLWC | Department of Land and Water Conservation, New South Wales, now part of the Department of Infrastructure, Planning and Natural Resources |
| DNR | Department of Natural Resources, Queensland |
| DOFA | Australian Government Department of Finance and Administration |
| ESD | Ecologically Sustainable Development |
| EPA | Environmental Protection Agency, New South Wales |
| EPBC Act | <i>Environmental Protection and Biodiversity Conservation Act 1999</i> |
| GMAC | Genetic Manipulation Advisory Committee |
| GOA | Groundrig Operators Association |
| GRDC | Grains Research and Development Corporation |
| Heliothis | Insect pest, more properly known as <i>Heliothis</i> spp. (<i>H. armigera</i> and <i>H. punctigera</i>) |
| HVI | High Volume Instrument |
| ICAC | International Cotton Advisory Committee |
| INGARD® | Cotton varieties containing one Bt gene resistant to <i>Helicoverpa</i> spp. |
| IP | Intellectual Property |
| IPM | Integrated Pest Management |
| LWA | Land and Water Australia |
| MDBC | Murray-Darling Basin Commission |
| MLA | Meat and Livestock Australia |
| MP | Member of Parliament |
| NFF | National Farmers' Federation |
| NRA | National Registration Authority for Veterinary and Agricultural Chemicals. Now known as the Australian Pesticides and Veterinary Medicines Authority (APVMA) |
| NRM | Natural Resource Management |
| NSW DPI | New South Wales Department of Primary Industries |
| OGTR | Office of the Gene Technology Regulator |
| PIERD Act | <i>Primary Industries and Energy Research and Development Act 1989</i> |
| Pima cotton | <i>Gossypium barbadense</i> . Related to Egyptian cotton, having extra long and fine staples. Limited Australian production in the Darling region. |
| QDPI | Department of Primary Industries, Queensland |
| RCMAC | Raw Cotton Marketing Advisory Committee |
| RIRDC | Rural Industries Research and Development Corporation |
| RR ® | Roundup Ready® |
| RR Flex® | Roundup Ready Flex® |
| RRDCC | Rural Research and Development Chairs' Committee |
| TIMS | Transgenic and Insect Management Strategy Committee |
| TRC | Technology Resource Centre (at the Australian Cotton Research Institute) |
| 'Upland' cotton | <i>Gossypium hirsutum</i> . Comprises the vast majority of the Australian cotton crop |

