



Australian Government

**Grains Research and
Development Corporation**

GRDC Statement of Intent

19 October 2007

GRDC

**Grains
Research &
Development
Corporation**

Role

The Grains Research and Development Corporation (GRDC) invests in research, development and delivery to support effective competition by Australian grain growers in global grain markets, through enhanced profitability and environmental sustainability. The GRDC's *Strategic R&D Plan 2007-12* and *Annual Operational Plan 2007-08* show how the corporation will progress its objectives and strategies in 2007-08 to realise the aims of the PIERD Act.

In 2007-08 the GRDC will continue to drive innovation in the grains industry through its lines of business strategies (LOB) and undertake targeted extension resulting in enhanced adoption of sustainable farming practices and technologies through appropriate delivery channels. To increase the effectiveness and efficiency of Australia's rural R&D investment the GRDC will continue to reduce duplication and fragmentation on cross-industry issues and effectively collaborate through co-investment, coordination and communication with other RDCs, research partners and industry participants along the whole supply chain. Some examples of the GRDC supported joint R&D projects are:

- ◆ Managing Climate Variability Program—with Australian Wool Innovation, Dairy Australia, Land and Water Australia (LWA), Meat and Livestock Australia (MLA), the Rural Industries RDC (RIRDC) and the Sugar RDC
- ◆ Pastures Australia—with Australian Wool Innovation, Dairy Australia, Meat and Livestock Australia and the Rural Industries RDC
- ◆ Australian Cereal Rust Control Program – with the University of Sydney, CSIRO and the International Maize and Wheat Improvement Center (CIMMYT)
- ◆ Healthy soils – with government agencies, grower groups and the private sector, across south eastern Australia, led by Department of Primary Industries (DPI), Victoria
- ◆ Philom Bios (Australia) Pty Ltd – with Philom Bios Inc. of Canada, to develop and commercialise high-value biological soil inoculants
- ◆ Arista Cereal Technologies Pty Ltd – with CSIRO and Groupe Limagrain (France) for delivering high-amylose wheat
- ◆ Joint Centre for Farm Health and Safety – with RIRDC
- ◆ Premium Grains for Livestock Program – with RIRDC, MLA, APL, SARDI, University of Sydney, University of New England, CSIRO, DPI Victoria, New South Wales Agriculture
- ◆ Grain and Graze Program – with LWA and MLA.

The GRDC is collaborating with PISC (Primary Industry Standing Committee) and CRRDCC (Council of Rural Research and Development Corporation Chairs) in the nationally coordinated Joint Strategy Team on Climate Change to address joint interests in climate change across industries and regions to address issues such as mitigation, adaptation, forecasting, accounting, opportunities, risks, adoption and communication, as well as to identify industry needs.

Government policies

In the *Strategic R&D Plan 2007-12*, one of the four corporate strategies of the GRDC is to deliver against the Australian Government priorities. 2007-08 is the first operational year under the GRDC's current strategic R&D plan. In 2007-08 the GRDC will continue to actively respond to the National Research Priorities and to the Rural Research and Development Priorities, announced by the Hon Peter McGauran MP, Minister for Agriculture, Fisheries and Forestry in his May 2007 Agriculture Statement.

The GRDC's *Strategic R&D Plan 2007-12* is aligned with the National Research Priorities and Rural Research and Development Priorities. The GRDC's *Annual Operational Plan 2007-08* demonstrates how the corporation will implement its corporate and LOB strategies to deliver increased competitiveness, productivity and sustainability for the grains industry.

Practices LOB strategy of identifying and developing profitable, innovative and integrated practices and technologies will increase the **productivity and profitability of existing industries**. New Products LOB strategy of undertaking product development to meet market requirements will lead to better understanding of and response to domestic and international market and consumer requirements (**supply chain and markets**). Practices LOB strategy of enhancing sustainable management of natural resources including underlying strategies to align sustainable production systems research at a farm level with broader, community-based land use initiatives will support **effective management of Australia's natural resources**. Practices LOB strategy of providing the grains industry with tools to manage climate variability within the context of climate change will **build resilience to climate variability and help to mitigate the effects of climate change**. Practices LOB strategy of collaborating with Plant Health Australia, CRC for National Plant Biosecurity and the Australian Cereal Rust Control Program will address the Australian Government's Rural R&D Priority relating to **biosecurity**.

Examples of the GRDC's new investments commencing in 2007-08 (most of the investments have about three to four-year implementation periods) and how these meet the Australian Government Rural R&D Priorities along with key performance indicators have been shown in a separate section in the *Annual Operational Plan 2007-08*.

Varieties line of business

The objective of the Varieties LOB is: *Growers have access to superior varieties that enable them to effectively compete in global grain markets*. The Varieties LOB will achieve its objective by implementing four strategies:

- build and sustain world-leading breeding programs
- focus pre-breeding research on key traits
- develop a path to market for genetically modified crops
- facilitate faster adoption of superior varieties

The GRDC is working closely with its research partners to ensure that: (a) breeding programs are market-driven – that is, they are integrated with medium to long term demand signals (in terms of quality traits) from consumers, and (b) strong leadership and communication exist throughout the breeding chain, including pre-breeding research, breeding, variety commercialisation, variety uptake by growers and use by consumers. The GRDC will continue to work with its partners in the national programs e.g. Barley Breeding Australia (BBA) and

Pulse Breeding Australia (PBA), as well as in the national alliances e.g. National Wheat Breeders' Alliance and Australian Winter Cereals Pre-breeding Alliance to achieve efficiencies through greater integration and collaboration at the national level, while catering for specific regional and consumer requirements.

Over the 2007-08 operational plan period the GRDC aims that the average annual increase in crop yield (as measured in NVT trials) will be:

- 1% for wheat
- 1% for barley
- 1.5% for canola
- 1.5% for sorghum
- 2% for pulses.

In addition, the GRDC aims that the research organisations that are responsible for at least 80% of pre-breeding research having agreed to focus 50% or more of their resources on an agreed set of key national and regional agronomic traits e.g. rust, drought, salt and frost tolerant, as well as water use efficiency.

The GRDC investments underpinning the Varieties LOB are explicitly connected to the Rural R&D Priorities, in particular the following three priorities:

(a) Productivity and Adding Value, (b) Supply Chain and Markets and (c) Technology. New investments to develop advanced canola germplasm and to investigate ways to eliminate defects in wheat that reduce grain quality and price will improve the **productivity and profitability of existing industry**. New investment in a breeding program that aims to develop and release new culinary soybean varieties suitable to meet high-value export market requirements will result in better understanding and responding to international market and consumer requirement (**supply chain and markets**). In addition, new investments to develop a viable genotyping service for Australian breeding programs and to identify candidate genes and molecular markers for significant agronomic traits in the international 'Brassica A' genome-sequencing program will **promote the development of new and existing technology**.

Capacity building

Leveraging total grains R&D investment is one of the corporate strategies of the GRDC, which will be implemented in the area of capacity building. The GRDC collaborates with state and territory governments, the Australian Government, research partners and the private sector to build effective industry and research capacity. The GRDC along with the other RDCs, Murray-Darling Basin Commission and the Australian Government Department of Agriculture, Fisheries and Forestry will continue to jointly invest in the project *Cooperative Venture for Capacity Building*. Its goal is to instigate and support learning by growers and rural communities. This is a nationally coordinated approach to give all primary producers the capacity and skills to obtain information and education needed to embrace innovation. Furthermore, the GRDC will be developing its capacity strategy in consultation with its stakeholders.

Drought strategy

The GRDC will continue to focus on approaches to dealing with drought. The GRDC, in collaboration with its research partners, has implemented a number of actions to maintain an effective grains R&D program. Specific actions that have been taken include: (a) approval by the GRDC Board to lower its reserve policy, from between 50 and 75 percent to between 40 and 70 percent of the next year's expenditure; (b) the GRDC's operating costs were reduced in 2006-07 and (c) the

GRDC worked closely with its research partners to identify which new projects could be deferred or cancelled, and where savings could be made from existing projects. These actions reflect a determined approach to the management of the GRDC's reserves and an in-depth analysis of operating costs. The GRDC will update the drought strategy in 2007-08 based on the expected poor grains production. In order to assist growers in dealing with recovery from drought the GRDC will continue to invest in grower updates so as to advise them on new technologies, more drought-tolerant grain types and better farm business management practices.

The GRDC has been investing in water harvesting and tillage systems, as well as drought tolerant crops and pastures for managing water stress and increasing water use efficiency. The grains industry has made major advances in water use efficiency, as was evident in the 2006 drought. Had the farming practices of the 1980s been followed, Australia would have produced a wheat crop of only 3.9mt in 2006 compared to the 9.8mt actually produced. The GRDC will continue to promote the uptake of water use efficiency tools for farm management systems. Over the current strategic R&D plan period 2007-12, the GRDC aims to increase water use efficiency by 10% in targeted agro-ecological zones.

The GRDC along with the Australian Research Council and others will continue to invest in the Australian Centre for Plant Functional Genomics, which will focus on the discovery of genes that confer resistance to drought, salt and frost. In addition, the GRDC invests in breeding programs for wheat, barley, triticale, durum and oats, and within these programs significant activity is directed towards breeding varieties that can withstand abiotic stress including drought. Genetic improvement and regional adaptation of new grain varieties, improved resistance to biotic and abiotic stress, and risk management approaches including genetic disease resistance will continue to be part of the GRDC's overall drought strategy.

Performance reporting

Evaluating the significant impacts of R&D investments and reporting to stakeholders on performance are part of the GRDC's core business process. The GRDC has worked with other RDCs to develop a sound evaluation framework for quantifying returns both for the Australian Government and growers. The GRDC has recently engaged an independent consultant, selected through a tender process, to conduct the evaluations based on the agreed common RDC framework.

Productivity trends in the grains industry are used as a measure of the benefits of R&D activities. The GRDC will monitor total factor productivity across the agroecological zones to assess the industry-wide impact of the GRDC's corporate strategies and the corresponding R&D investments.

The GRDC has developed specific and relevant performance indicators that will measure both efficiency and effectiveness for each of its lines of business and its whole portfolio in 2007-08. These have been provided in the *Annual Operational Plan 2007-08*. The GRDC will assess the performance of programs and projects against its strategies and stakeholders' priorities, and report to the Australian Government and industry stakeholders in the *Annual Report 2007-08*.

As part of the bi-annual Grower Survey, the GRDC has engaged an external consultant for undertaking a comprehensive survey of growers in 2007-08. In addition, survey of the relevant departments and agencies in the Australian Government as well as the research partners will be undertaken. The feedback

from the growers, the Australian Government and the research partners is reported to the GRDC Board and follow-up actions are undertaken.

Communication

The GRDC will continue to maintain and strengthen communications flows and information exchanges with the Minister for Agriculture, Fisheries and Forestry, the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry and the Departmental Secretary at DAFF. All information the GRDC provides to the Minister and Parliamentary Secretary is provided in parallel to the Departmental Secretary. The Departmental Secretary has nominated the Executive Manager of the Food and Agriculture Division in DAFF to be the contact for GRDC. He will provide continuing advice on government policies and attend board meetings, when needed, to present or discuss specific policy issues. In accordance with instructions from the Board, the GRDC Management will maintain regular contact with the Minister, Parliamentary Secretary and DAFF.

The GRDC will continue to work closely with the Australian grain growers. The GRDC reports to Australian grain growers through the industry's representative organisation, the Grains Council of Australia and its affiliates. The GRDC also has close relationships with a number of other grower associations including the Grain Growers Association.

The GRDC is maintaining strong and direct communication with grain growers across Australia. The corporation organises regular grower updates in various regions and participates in Regional Advisory Committees and Link Groups. The GRDC Panel members and Program Teams attend conferences and workshops to identify priority issues nationally and in the regions. The GRDC's Grains Research Updates are held twice in a year. In consultation with local growers and agronomists, topics for these updates are chosen for their relevance to a region. These updates allow local participants to keep up to date with the latest and best grains research from around the world. The GRDC will continue to provide information to grain growers through its free bi-monthly newspaper Ground Cover and Ground Cover inserts.

The GRDC has established a series of 'communication catchments' throughout the grain belt. The corporation will continue to work with the 'communication catchments' to build strong relationships with growers, farm advisers, consultants and resellers providing technical and strategic advice on agronomy, farm inputs and farm business management.

The GRDC's website www.grdc.com.au has been redesigned and launched in July 2007. The website is now very user-friendly and provides valuable R&D information to growers and researchers.

Accountability

The GRDC is subject to the requirements of the *Primary Industries and Energy Research and Development Act 1989* (PIERD Act), and the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

The GRDC will continue to provide quarterly performance reports to the Minister for Agriculture, Fisheries and Forestry, the Parliamentary Secretary to the Minister for Agriculture, Fisheries and Forestry and the Departmental Secretary, and publish an Annual Report. The GRDC's Strategic R&D Plan, Annual Report, Grower Stakeholder Report and other publications can be found on the GRDC's website www.grdc.com.au.