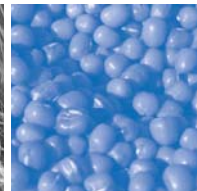


# Appendices

Appendix 1— Australian Government research priorities	128
Appendix 2— Expenditure on government research priorities	129
Appendix 3— GRDC project list	132
Appendix 4— Joint R&D project list	152
Appendix 5— Publications and products	154



# Appendix 1: Australian Government research priorities

Table A1.1 shows the relationships between the government's National Research Priorities and the goals that are associated with them, as well as the revised Rural R&D Priorities as announced by the Minister for Agriculture, Fisheries and Forestry in May 2007.

**Table A1.1 Australian Government priorities and associated goals**

National Research Priorities				
<i>An environmentally sustainable Australia</i>	<i>Promoting and maintaining good health</i>	<i>Frontier technologies for building and transforming Australian Industries</i>	<i>Safeguarding Australia</i>	
<p><b>A1:</b> Water—a critical resource</p> <p><b>A2:</b> Transforming existing industries</p> <p><b>A3:</b> Overcoming soil loss, salinity and acidity</p> <p><b>A4:</b> Reducing and capturing emissions in transport and energy generation</p> <p><b>A5:</b> Sustainable use of Australia's biodiversity</p> <p><b>A6:</b> Developing deep earth resources</p> <p><b>A7:</b> Responding to climate change and variability</p>	<p><b>B1:</b> A healthy start to life</p> <p><b>B2:</b> Ageing well, ageing productively</p> <p><b>B3:</b> Preventive healthcare</p> <p><b>B4:</b> Strengthening Australia's social and economic fabric</p>	<p><b>C1:</b> Breakthrough science</p> <p><b>C2:</b> Frontier technologies</p> <p><b>C3:</b> Advanced materials</p> <p><b>C4:</b> Smart information use</p> <p><b>C5:</b> Promoting an innovation culture and economy</p>	<p><b>D1:</b> Critical infrastructure</p> <p><b>D2:</b> Understanding our region and the world</p> <p><b>D3:</b> Protecting Australia from invasive diseases and pests</p> <p><b>D4:</b> Protecting Australia from terrorism and crime</p> <p><b>D5:</b> Transformational defence technologies</p>	
Rural R&D Priorities				
<i>Productivity and adding value</i>	<i>Supply chain and markets</i>	<i>Natural resource management</i>	<i>Climate variability and climate change</i>	<i>Biosecurity</i>
<p>Improve the productivity and profitability of existing industries and support the development of viable new industries</p>	<p>Better understand and respond to domestic and international market and consumer requirements and improve the flow of such information through the supply chain, including to consumers</p>	<p>Support effective management of Australia's natural resources to ensure primary industries are both economically and environmentally sustainable</p>	<p>Build resilience to climate variability and adapt to and mitigate the effects of climate change</p>	<p>Protect Australia's community, primary industries and environment from biosecurity threats</p>
Supporting the Rural R&D Priorities				
<i>Innovation skills</i>		<i>Technology</i>		
<p>Improve the skills to undertake research and apply its findings</p>		<p>Promote the development of new and existing technology</p>		

## Appendix 2: Expenditure on government research priorities

The following tables summarise the total expenditure allocated against the Australian Government's National Research Priorities and priorities for rural R&D within the 2006–07 financial year (see Table 4 in Part 2 for a summary of these priorities and their relationships with the priorities of Australian grain growers). The allocation of funds is shown in both dollar and percentage terms for each output group.

**Table A2.1 Australian Government National Research Priorities, dollar values (\$m)**

National Research Priorities	An Environmentally Sustainable Australia							Promoting and Maintaining Good Health				Frontier Technologies for Building and Transforming Australian Industries					Safeguarding Australia					Total					
	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5						
Varieties	0.69	1.60	0.86				2.84						34.17			4.28			5.32								49.76
Practices	1.75	10.62	8.21				1.11			0.06			1.02			3.59			11.32								37.68
New Products		2.27	0.41				0.08			0.96			3.28			0.01			1.70								8.71
CCS																5.28			0.01								5.29
CSPS		0.92														0.66											1.58
<b>Total</b>	<b>2.45</b>	<b>15.41</b>	<b>9.48</b>				<b>4.02</b>			<b>1.02</b>			<b>38.47</b>			<b>13.82</b>			<b>18.35</b>								<b>103.02</b>

CCS = Communication & Customer Services, CSPS = Corporate Strategy & Program Support

Notes:

Strategic investments in 2006–07 included Single Vision Grains Australia Ltd, Agrifood Awareness and Australian Bureau of Agricultural and Resource Economics (ABARE) farm surveys. Total does not include investments such as emerging issues, contingencies and project variations.

**Table A2.2 Australian Government National Research Priorities, percentage values**

National Research Priorities	An Environmentally Sustainable Australia							Promoting and Maintaining Good Health				Frontier Technologies for Building and Transforming Australian Industries					Safeguarding Australia					
	A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	C1	C2	C3	C4	C5	D1	D2	D3	D4	D5	Total
Varieties	0.67	1.55	0.84				2.75					33.17				4.16		5.17				48.31
Practices	1.70	10.31	7.97				1.08		0.06			0.99				3.49		10.99				36.59
New Products		2.20	0.39				0.07		0.93			3.19				0.01		1.65				8.44
CCS																5.12		0.01				5.13
CSPS		0.89														0.64						1.53
<b>Total</b>	<b>2.38</b>	<b>14.96</b>	<b>9.20</b>				<b>3.90</b>		<b>0.99</b>			<b>37.34</b>				<b>13.42</b>		<b>17.81</b>				<b>100.00</b>

CCS = Communication & Customer Services, CSPS = Corporate Strategy & Program Support

Notes:

Strategic investments in 2006–07 included Single Vision Grains Australia Ltd, Agrifood Awareness and ABARE farm surveys.

Total does not include investments such as emerging issues, contingencies and project variations.

**Table A2.3 Australian Government rural R&D priorities, dollar and percentage values**

Ministerial priorities for rural R&D corporations and companies	Sustainable natural resource management		Improving competitiveness through a whole-of-industry approach		Maintaining and improving confidence in the integrity of Australian agricultural food, fish and forestry products		Improved trade and market access		Use of frontier technologies		Creating an innovative culture		Protecting Australia from invasive disease and pests		Total	
	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%	\$m	%
Varieties			38.37	37.24				0.26	6.52	6.33			4.62	4.48	49.76	48.31
Practices	21.00	20.39	3.06	2.97					0.03	0.03			10.65	10.34	37.68	36.59
New Products	0.66	0.64	2.79	2.71	0.96	0.93	0.35	0.34	3.70	3.59	0.01	0.01	0.24	0.24	8.71	8.44
CCS													0.01	0.01	5.29	5.13
CSPS			0.92	0.89			0.02	0.02			0.64	0.62			1.58	1.53
<b>Total</b>	<b>21.66</b>	<b>21.02</b>	<b>45.14</b>	<b>43.82</b>	<b>0.96</b>	<b>0.93</b>	<b>0.63</b>	<b>0.61</b>	<b>10.25</b>	<b>9.95</b>	<b>8.87</b>	<b>8.61</b>	<b>15.52</b>	<b>15.06</b>	<b>103.02</b>	<b>100.00</b>

CCS = Communication & Customer Services, CSPS = Corporate Strategy & Program Support

Notes:

Strategic investments in 2006–07 included Single Vision Grains Australia Ltd, Agrifood Awareness and ABARE farm surveys.

Total does not include investments such as emerging issues, contingencies and project variations.

## Appendix 3: GRDC project list

**Table A3.1 Project expenditure, 2006–07**

Project no.	Project title	Expenditure \$
	<b>GENE DISCOVERY</b>	
ACP00001	Australian Centre for Plant Functional Genomics	2,000,000
AGP00006	AWCMMP—Component: Wheat marker implementation/validation for Australian Grain Technologies Pty Ltd	265,000
ANU00008	Genetic controls of root impedance and drought signalling in wheat	260,274
ANU00009	Wheat ERECTA/ERECTA-like genes: Proof of function on water use efficiency and potential for breeding improved germplasms	222,027
CAS00001	Australian Crop Accreditation System Ltd	594,843
CMB00012	AWCMMP—Component: Curation of wheat and barley maps	50,000
CSP00017	Australian Cereal Rust Control Program—Molecular biology	558,847
CSP00063	AWCMMP—Component: Towards the application of perfect markers for broad spectrum disease resistance in wheat	144,000
CSP00089	Maintaining wheat grain number and size during reproductive stage drought stress	186,000
CWQ00010	Triticarte	150,000
CWQ00013	AWCMMP—Component: Phenotyping complex quality traits for marker identification and validation: Phase 2	24,384
DAN00072	AWCMMP—Component: Implementation/validation of molecular markers: Enterprise Grains Australia	369,022
DAN00073	National Statistics Project (KP1)—Statistical support for crop improvement and National Variety Trials	256,523
DAN00074	National Statistics Project (KP2)—Strategic statistical research for crop improvement	324,679
DAN00085	National Statistics Project (KP3)—Molecular markers and statistical genetics	270,938
DAQ00076	Integrating crop improvement technologies for rapid yield advance	459,277
DAQ00077	AWCMMP—Component: Pedigree-based genome mapping for marker assisted selection and recurrent parent recovery in wheat and barley: Phase 2	185,000
DAQ00078	Molecular biology support for barley improvement—North	103,000
DAQ00085	Identifying candidate genes for stay-green in sorghum	147,149
DAR00001	Strategic investment in the development of Diversity Arrays Technology	401,264
DAR00002	AWCMMP—Component: Adding value to Diversity Arrays Technology	77,000
DAV00058	Australian Participation in the multinational brassica genome project	250,010
DAV479	Development of molecular markers for implementation within the National Brassica Improvement Program	397,000
DAW00102	Development and implementation of molecular markers for lupin breeding	196,934
DAW00113	AWCMMP—Component: Validation/implementation—barley, Western Region	143,000
DAW00118	AWCMMP—Component: Implementation/validation of molecular markers in DAFWA (VI 12)	161,000
GBA00003	Development of salt tolerant wheat for commercial production	342,825
GBA00003-1	Commercialisation of intellectual property from GBA00003	201,175
IPC00001	Transgenic wheat plants resistant to fusarium and other fungal pathogens	163,000
SV00001	GM Biotechnology Crop Project—Pathway to market	33,171
TCC00002	Exploring commercialisation opportunities for Patent WO2006/066340	6,000
UA00007	Transformation in functional genomics and cereal improvement programs	393,928
UA00063	Breeding for frost tolerance in barley	130,500

Project no.	Project title	Expenditure \$
UA00070	Advancement of new genes for stem and leaf rust resistance from uncultivated relatives of wheat	167,693
UA00072	AWCMMP—Component: Multiplex PCR technologies to accelerate the use of SSRs in cereal breeding and genetic research	142,015
UA00073	Genetic variation for improved frost tolerance in wheat	212,000
UA00080	AWCMMP—Component: Association mapping	275,028
UA00083	Cereal Functional Genomics Centre	591,973
UA00086	Whole genome selection in wheat and barley—The practical application of whole genome analysis	180,000
ULA00006	A novel male sterility system for canola and wheat	143,300
UMU00019	AWCMMP—Component: Rice–wheat–barley comparative genomics for key agronomic traits	106,000
US00030	AWCMMP—Component: Markers for rust resistance in cereals	102,530
US315	Australian Cereal Rust Control Program	1,050,318
USQ00007	Molecular markers for high-priority traits in winter cereals for the Northern Region	444,000
VR24	National Variety Trials combined budget	2,679,310
VR56	Project Review 2006—DARt Triticarte	27,427
WCI52	AWCMMP—Communications project	81,633
	<b>Total Gene Discovery</b>	<b>15,670,997</b>
	<b>GERMPLASM ENHANCEMENT</b>	
ACG00002	National Genetic Resources Centre	7,000
AGS00002	CIMMYT suite of projects: Germplasm evaluation project	117,500
ANU00007	Managing and identifying resistance against barley scald	93,819
BA00002	Pilot brewing evaluation for malting barley lines destined for export	54,600
BRI00006	National Wheat Quality Testing Program	218,000
BRI00037	Seed testing and sorting using single-kernel NIR technology	199,000
CIM00007	CIMMYT alliance	30,000
CIM00008	CIMMYT alliance—Component 1: Protecting the Australian wheat industry from Karnal bunt through the development and implementation of molecular markers	(27,588)
CIM00010	CIMMYT alliance—Component 3: Improving the stress tolerance of wheat genotypes of relevance to the Australian production environment	297,000
CIM00012	Enhanced evaluation of CIMMYT germplasm in Australia—CIMMYT component	147,546
CIM10	Exploitation of the genetic resources of synthetic wheats	(7,802)
CIM11	Enhanced evaluation of CIMMYT germplasm in Australia—CIMMYT component	92,000
CIM13	Australian Cereal Rust Control Program—Adult plant resistance and introgression of new and novel genes	356,000
CMB00003	Variation in barley scald and effective resistance gene deployment	137,000
CMB00006	MPBCRC: Improved disease resistance in cereals	219,300
CMB00008	MPBCRC: New markers, genetic mapping and QTL analysis	105,000
CMB00009	MPBCRC: Disease genetics—Pathogen variation and host interactions	74,627
CMB00011	MPBCRC: Education and training program	178,301
CSP00053	Wheat trait, genes and germplasm for adaptation to water-limited environments in the northern region	864,283
CSP00057	Vigorous roots for hostile soils	93,530
CSP00058	Development and delivery of salt tolerance and water use efficiency traits for durum with diversified genetic background	259,664
CSP00059	Improved wheat and barley germplasm for saline and sodic soils: a collaborative proposal from CSIRO and Department of Primary Industries Horsham	124,350

Project no.	Project title	Expenditure \$
CSP00061	Analysis of the regulation of plant defence/stress gene expression	145,554
CSP00071	New resources for breeding for heading date and improved frost tolerance	128,002
CSP00076	International Adaptation Trial: Investigating adaptation of Australian and CIMMYT wheat germplasm	169,501
CSP00077	CSIRO Pre-breeding Gateway: Germplasm development and validation of novel traits for Australian wheat breeding	223,218
CSP00078	Genetic basis of sponge and dough breadmaking	363,836
CSP00080	Novel strategies for manipulating dormancy in wheat	315,985
CSP00081	Better wheats for Australia by capturing novel traits and associated markers for breeding programs	191,964
CSP00090	Creation and deployment to wheat of new recombinant alien translocations with barley yellow dwarf virus resistance	79,972
CSP00094	Fast tracking high-value traits using heavy-ion technology	36,804
CSPS15	Project Review 2006—Wheat trait, genes and germplasm for adaptation to water-limited environments in the Northern Region	5,107
CWQ00014	Late maturity alpha-amylase screening services	50,000
CWQ00015	CIMMYT suite of projects: Communication project	85,800
CWQ00016	Exploiting septoria resistance in wheat	171,336
CWQ00017	Dual-purpose Triticale Improvement Program (US)	165,508
DAN00061	Durum industry development—Fast tracking genetic solutions to crown rot	165,183
DAN00064	Durum industry development—Collaboration with ICARDA to accelerate cultivar improvement for adaptation across all production regions	60,000
DAN00089	Quarantine CIMMYT bread wheat germplasm	68,150
DAQ00002	Novel approaches to in-head frost tolerance	114,650
DAQ00045	SIP04: Defect elimination in wheat—Black point	109,478
DAQ00094	National screening for barley grain defects including black point, staining and preharvest sprouting	130,877
DAQ00104	Sponge and dough bread quality of Australian wheat germplasm	249,125
DAQ566	Genetic approaches to resistance to fusarium and bipolaris in wheat and barley	140,853
DAS00048	Control of cereal fungal diseases	210,000
DAS00052	Plant genetic resources: Enhancing germplasm conservation for Australian agriculture	1,049,800
DAS00074	Incorporating new sources of stem and leaf rust resistance from wild oat species into cultivated oat varieties	53,593
DAV00076	Synthetic evaluation project	110,174
DAV00082	Improved selection for grain plumpness and malting quality	47,999
DAV436	Defect elimination in wheat—Development of preharvest sprouting resistant bread wheats	35,000
DAW00085	Addressing rust resistance and other key traits in wheat breeding for the Western Region	393,604
DAW00126	Enhancing resistance to <i>Stagonospora nodorum</i> in Australian wheat germplasm	189,332
GRD151	Value Added Wheat CRC	750,000
GRD173	GrainGene 2	(32,230)
ICA00003	Technologies for the targeted exploitation of cereal and pulse landraces	169,632
ICA00004	Enhancement of yield and yield stability of spring bread wheat in semi-arid Mediterranean areas of central and west Asia and north Africa	171,279
JHC00002	Executive Manager GrainGene 3	12,197
JHC00002-1	Executive Manager GrainGene 3—Expenses	6,300
QOG00001	Wheat Quality Objectives Group	92,000



Project no.	Project title	Expenditure \$
RAC00002	Development of Australian test bake straight dough method	11,300
UA00034	SIP04: Defect elimination in wheat—Preharvest sprouting	100,595
UA00039	SIP04: Defect elimination in wheat—Coordination	11,214
UA00061	Development and evaluation of weed-competitive wheat cultivars	259,662
UA00074	Germplasm development for durum improvement in southern Australia	244,644
UA00076	Improving adaptation of wheat to hostile soils: Quantifying the importance of traits and targeted germplasm development	106,090
UA00085	SIP04: Defect elimination in wheat—Late maturity alpha-amylase	191,057
UA00090	Physiological based screening for identifying novel salt-tolerant germplasm in wheat and barley	97,947
UA00093	Biochemical and genetic solutions to grain defects elimination and grain quality improvement	164,940
UA00094	Flour and product colour in wheat	199,680
UQ00040	Support for International Crop Information System for Australian grain breeding and CIMMYT germplasm introduction programs	74,178
UQ127	Assessment of the extent of collateral damage in genetically-engineered wheat and barley	18,975
US00028	Adult plant resistance and pathogen variability in cereal rust: Cereal host pathosystems	208,460
USQ00002	Generation and evaluation of transgenic wheat plants for frost tolerance	65,515
USQ00008	Durum industry development—Molecular marker assisted selection for crown rot resistance	60,800
UT00012	Market optimisation and targeting of the fermentability of Australian malting barleys	94,600
UT00013	Targeting potassium homeostasis in breeding wheat for salt tolerance	50,044
UT8	Australia–China Collaboration on barley genetic resources	100,000
UWA00038	Genetic Dissection of Fungal Disease Resistance in Legumes using <i>Medicago truncatula</i>	491,365
UWA00091	An international collaboration to develop interspecific hybrids between chickpea and its wild relatives	116,034
UWA00094	Interspecific hybridisation of lupins	148,844
VR34-1	Barley quality improvement	2,348
VR43-1	ICARDA germplasm	3,722
VR52	Commercialisation costs	1,919
VR53	GrainGene 3	641,406
VR55	National Genetic Resource Centre Interim Executive Coordinator—contribution from other parties	80,000
VR55-1	National Genetic Resource Centre Interim Executive Coordinator	80,000
WCI38	Australian wheat quality improvement program—Coordination and forum	26,500
	<b>Total Germplasm Enhancement</b>	<b>13,714,552</b>
	<b>WHEAT AND BARLEY BREEDING</b>	
AGP00004	Fast tracking of rust resistant Stylet replacements for growers in Southern Australia	244,619
AGP00005	National Triticale Improvement Program	406,875
AGP00008	Development of SunPrime Seeds lines	1,000,000
AGP2	Australian Grain Technologies Pty Ltd—Independent directors	10,969
CMB00005	AWCMMP—Component: Genetic analysis and marker-trait linkages—south and west	544,000
CMB00014	Accelerating breeding progress by predicting the effects of genes influencing yield and quality in wheat and barley	202,772
CSP00019	Wheat breeding for the high-rainfall zones of Australia	314,279

Project no.	Project title	Expenditure \$
DAN00060	Australian Durum Industry Development Officer	125,465
DAN00101	Barley Breeding Australia—New South Wales Department of Primary Industries	166,400
DAN00105	Australian National Durum Wheat Improvement Program	333,501
DAQ00110	Barley Breeding Australia—Northern node	950,000
DAS00039	Improved oat varieties for milling, feed end use in the Southern Region Oat Breeding Program	610,003
DAV00079	National Barley Enhancement Program Coordinator	45,142
DAV00080	Barley cultivar development—Department of Primary Industries Victoria, Horsham	454,303
DAW00120	Wheat breeding for the Western Region	1,283,894
DAW00151	Barley Breeding Australia—Western Region	1,218,356
EGA00001	Enterprise Grains Australia	2,300,554
MCG00001	Export Grain Centre—Independent Director	29,000
MPC00002	Coordinator for Barley Breeding Australia	259,800
MPC00003	Durum industry desktop study	14,000
PBS00005	Develop a national plan for barley breeding	26,400
RWF00006	Durum industry desktop study	1,258
UA00032	Barley Breeding Australia—Southern node	1,567,520
UA00078	AWCMMP—Component: Malting Barley Quality Improvement Program implementation and validation	182,500
UWA00096	Barley Improvement through germplasm introduction, evaluation and enhancement	156,763
VR01-1	Barley breeding	24,553
	<b>Total Wheat and Barley Breeding</b>	<b>12,472,926</b>
	<b>PULSE, OILSEED AND SUMMER COARSE GRAINS</b>	
ACA5	Contribution towards ACIAR project—CS1/1999/072 Oilseed Brassica Improvement in China India and Australia	180,000
CI29	Lupin breeding—Capital component	65,000
DAN00034	Faba bean improvement—Northern Region	371,136
DAN00062	Albus lupin breeding	289,984
DAN00063	National Brassica Improvement Program—New South Wales Agriculture	280,000
DAN00094	Australian Chickpea Breeding Program	871,352
DAQ00015	Crop Improvement of grain sorghum in Australia—Core breeding	568,837
DAQ00060	National Mungbean Improvement Program	245,095
DAQ00062	Cloning of an insect resistance gene from sorghum	115,692
DAQ00070	Australian Peanut Improvement Program	475,311
DAQ00092	Maize germplasm enhancement and productivity improvement for tropical Australia	140,673
DAS00047	National Brassica Improvement Program—South Australia	61,600
DAS00050	Lupin evaluation—South Australia—Victoria node	100,023
DAS00059	Improved vetch varieties for Australian farmers and end-users	203,986
DAS00066	Pulse germplasm enhancement—Vegetative and reproductive frost tolerance in pulse crops	78,855
DAS00067	Pulse germplasm enhancement—Bacterial blight in field pea, pod drop in lentil, and heat stress tolerance in field pea and faba bean	131,217
DAV00060	National Brassica Improvement Program—Department of Primary Industries Victoria and lead agency	360,000
DAV00071	Australian Field Pea Breeding Program	775,000
DAV00072	Australian Lentil Breeding Program	455,731

Project no.	Project title	Expenditure \$
DAV00073	Pulse Germplasm Enhancement—Boron and salt tolerance in temperate pulses and durable ascochyta blight resistance in chickpeas	49,382
DAW00101	Evaluation and selection of high-quality brassica breeding lines for short season environments of Western Australia	149,642
DAW00104	Yellow lupin improvement	312,692
DAW00105	Western Lupin Technology—Narrow-leaved lupin breeding for southern Australia	776,704
FWC00001	Coordinator for Pulse Breeding Australia	10,000
GBE00001	Consultancy—National Pulse Breeding Program	11,117
GBE00001-1	Pulse Breeding Australia	24,180
RWF00007	Examination of options for better definition and delivery of innovation to the Western Australian lupin industry	25,419
UA00079	Faba bean breeding—Southern and western regions	511,246
UQ00035	Professorial Chair in Crop Science and Innovation	70,000
UWA00092	Lupin germplasm characterisation	150,000
UWA00093	Pearl lupin—development of the first Australian cultivar for commercial evaluation	52,023
	<b>Total Pulse, Oilseed and Summer Coarse Grains</b>	<b>7,911,897</b>
	<b>TOTAL VARIETIES</b>	<b>49,770,372</b>
	<b>AGRONOMY AND SOILS</b>	
AGO00002	Australian Greenhouse Office contribution to DAW00103 Measurement of paddock-based greenhouse gas emissions from wheat production to improve life cycle assessment of wheat products	(59,722)
AWR00002	Contribution towards Pastures Australia	500,000
BAT00002	Consultancy—Enhancing paddock profitability—a collaborative diagnostic approach to cropping systems research	30,000
CAG00002	On-farm evaluation of frost minimisation techniques and risk management strategies	50,000
CCC00002	Quantifying the effects of maize rotation on soil quality and nutrient availability on cotton growth and yield	13,000
CCC00003	High-yielding irrigated grains in cotton cropping systems—Phase 2	138,308
CCC00004	High-yielding Irrigated grains in cotton farming systems—Phase 3	111,602
CFG2	Using precision agriculture and soil inoculants to improve crop performance and grower returns	50,000
CSA00007	Province, paddock or patch—Giving farmers tools to optimise the scale at which fertiliser decisions are made	115,000
CSE00043	Harnessing soil microbial processes to get maximum value from stubble retention in different cropping regions	175,001
CSO00017	SIP09: Precision agriculture initiative—Unlocking the benefits of precision agriculture for farm profits and the environment	269,463
CSO00031	Innovative solutions to subsoil constraints for a profitable and environmentally sustainable grains industry in Western Australia	71,385
CSO00032	Investigation of cause and extent of lodging and yield loss associated with stubble-retention in irrigated maize	40,982
CSO00033	Farming system options and catchment salinity response	211,818
CSO00034	Improving farm to catchment nutrient management for a more profitable and environmentally sustainable grains industry	199,759
CSO00038	Feasibility for rapid soil-measurement using core scanning	38,158
CSO231	Fluid fertilisers—the next step toward raising yield potentials	50,950
CSO232	Managing the fallow period for optimum water use and nitrogen availability	30,000

Project no.	Project title	Expenditure \$
CSP00015	Improving wheat yields and quality in Western Australian sandplain farming system	172,568
CSP00040	Can we forecast seasonal wheat grain yields and protein in Western Australia?	114,587
CSP00049	Evaluating the use of subsoil water by crops—is it the pipes or the pump?	85,214
CSP00064	Exploiting genetic variation in wheat roots to promote beneficial interactions with soil organisms and thereby increase yield	200,489
CSP00065	Delivering high yields of milling wheats in the HRZ of Western Australia	162,422
CSP00083	New approaches and technologies for management of wheat grain protein content	250,000
CSP00085	Evaluating the potential for dual-purpose (graze/grain) canola in the mixed farming systems of southern Australia	150,000
CSP00087	Water balance of conservation farming systems	49,940
CSP00098	Exploratory practices in the Western Region	25,000
CTF00002	Managing variability—From controlled traffic farming and raised bed farming to information rich agriculture	176,000
CWC00003	Cover crop and stubble management systems for central and southern New South Wales	140,000
DAN00002	Permanent beds for sustainable cropping systems on irrigated farms	25,295
DAN00054	SIP09: Precision agriculture initiative	85,790
DAN00098	Development of agronomy packages for new varieties in southern New South Wales	129,423
DAN00104	Barley agronomy for Southern Australia	280,000
DAN00106	Developing agronomic solutions to improve barley yield and grain quality in the GRDC Northern Region	180,021
DAN484	Breeding improved lucernes for cropping systems in eastern Australia—Phase 2	121,919
DAQ00084	Nutrient management in rainfed cropping systems of the northern grains region	285,352
DAS00017	Reducing the impact of climate variability—Frost	44,500
DAS00035	Managing diseases using precision agriculture	156,221
DAS00040	Seed increase and distribution of perennial legumes to support sustainable and productive farming systems	60,000
DAS00075	DNA assay to quantify barley roots	57,077
DAS00078	Exploratory practices in the Western Region	25,000
DAS347	Breeding lucerne for Southern Australian cropping districts	66,970
DAV00030	SIP09: Precision agriculture initiative	173,324
DAV00049	Improving the profitability of cropping on hostile subsoils	500,000
DAV00057	Pulse Agronomic research for the development of variety specific management packages in south-eastern Australia	180,018
DAV00059	Management of high-rainfall cropping to improve water quality and productivity	216,241
DAV00061	Genotype and management combinations for highly productive cropping systems in the high-rainfall zone of southern Australia	480,357
DAV00066	Delivering rapid soil tests to growers	150,138
DAV00081	Assessment of greenhouse gas emissions in cereal—legume cropping systems in southern Australia	(505,000)
DAW00084	Diagnostic support and training for precision agriculture	113,489
DAW00093	Identifying soil constraints to crops production on the south coast sandplain	120,300
DAW00099	Lupin agronomic improvement in the Western Region—Enhancing the profitability of the lupin—wheat rotation	333,992
DAW00103	Measurement of paddock-based greenhouse gas emissions from wheat production to improve life cycle assessment of wheat products	(40,278)
DAW00107	Oat agronomy and industry development for the Western Region	127,308
DAW00138	The use and impact of deep drains on improving salt-affected soils used for grain cropping in the Western Australian wheat belt	82,400

Project no.	Project title	Expenditure \$
DAW00146	Enhancing paddock profitability—a collaborative, diagnostic approach to cropping systems research	349,692
DAW00147	Variety-specific agronomy for wheat yield and quality in the Western Region	250,810
DAW00148	Barley agronomy for the Western Region	391,687
DAW00155	Exploratory practices in the Western Region	25,000
DFT1	Coordination of GRDC water balance R&D and collation of results	3,409
DNR00004	SIP08: Combating subsoil constraints	354,281
GRD200	Agronomy Reference Group—Western Panel	7,095
LWR25	Contribution towards Managing Climate Variability Program	953,097
MLA00001	Contribution towards Pasture Soil Biology Program	100,000
NEGSFS2	SIP09: Precision agriculture initiative	(3,918)
NMS00002	Adoption of improved nutrient management practices	210,000
SAN00013	Improvement of no-till farming practices through innovation in sowing, weed control, residue management and precision agriculture systems	200,000
SPA00003	Improvement of nutrient management through effective use of precision agriculture technologies in the southern Australian grains industry	82,000
UA00081	Determining the benefits of fluid fertilisers on neutral and acidic soils in eastern and western Australia	84,804
UA00091	Responses to salinity in barley and pulse crops	15,000
UA00092	Chemistry and crop agronomy in alkaline cropping soils	159,977
UA00095	Field validation of DGT (diffuse gradients in thin films) for phosphorus and extension of the DGT test to other nutrients	100,000
UCS00008	The contribution of subsoil constraints to ‘canola yield decline’	260,300
UM00023	Synchronising nutrient supply and crop demand in modern cropping systems	316,451
UM00027	Effect of elevated carbon dioxide on wheat-based production systems under Australian field conditions	299,890
UM00028	Indirect greenhouse gas emissions from wheat–sheep farming systems	174,943
UNE00009	Chair in Mixed Farming Systems	85,805
UNS00002	Active implements for precision seed and fertiliser placement	26,800
UQ00037	Improved performance of cereal roots in Australian farming systems—Matching roots to cropping systems in the northern cropping region	125,000
US00017	Incorporating precision agriculture into Australian farm management	168,204
US00033	Development of a multi-sensor platform for real-time collection of field soil data	73,390
US00036	Develop a set of precision agriculture education and training modules aimed at Australian grain growers and others working in the grains industry	99,888
US00037	Development of tertiary-level education material for precision agriculture	96,616
USA00005	Improving sowing system technologies for no-till cropping	30,000
UT00009	Delivering a world-class root model to Australian grains researchers	131,725
UWA00031	Optimising potassium cycling in crops and soils for improved grain production in Western Australia	115,225
UWA00081	Combating subsoil constraints: Unlocking crop potential through innovative subsoil management	439,000
UWA00083	Lectureship in pasture science at UWA	40,012
UWA00084	Profitable and sustainable nutrient management in the Western Australian grains industry	263,000
UWA00089	Delivering rapid soil tests to growers	152,023
UWA00090	Root systems for Australian soils: Root traits for hardpan penetration and water extraction in wheat	124,532
UWA396	High water use farming systems that integrate crops with perennial pastures	169,076

Project no.	Project title	Expenditure \$
UWA397	National field evaluation and selection of new pasture plants from the salinity CRC to improve hydrological stability	345,000
UWS00007	Improved management of nutrient and soil water interactions in the northern grain zone	126,132
WAN00012	New frontiers no-till farming systems	244,284
WAN00013	Cover crops for no-till farming systems	55,700
WWL00001	Bringing it all together for the grains industry—A whole of catchment approach to integrated water management	187,536
	<b>Total Agronomy and Soils</b>	<b>14,445,247</b>
	<b>CROP PROTECTION</b>	
AKC00001	Registration for minor use chemicals for the grains industry	123,000
ANU00002	Lectureship in plant–microbe interactions	54,296
ANU00006	Exploring a model system to develop controls for plant parasitic nematodes	102,123
CRW5	CRC for Australian Weed Management	750,000
CSE00027	Insecticide resistance and sustainable management of aphids	126,300
CSE00028	Natural enemy evaluation of the silverleaf whitefly (SLW) and ecological processes affecting SLW dispersal	170,200
CSE00029	National Invertebrate Pest Initiative	424,349
CSE00037	Curation and development of invertebrate collections within the Australian National Insect Collection	65,925
CSP00079	Non–race specific (broad spectrum) adult plant rust resistance in wheat	277,972
CSP00096	Crown rot–resistant bread wheat through new knowledge of epidemiology and genetics	47,508
CSU00006	Integrated weed management in southern New South Wales	191,500
CSV00002	Biological control of mice—Immunocontraception	75,000
DAN00066	More profitable chickpeas through disease management—Northern Region	100,000
DAN00067	Differential herbicide tolerance of winter crops in south-eastern Australia Stage 2	144,900
DAN00068	Integrated disease management in field crops with emphasis on sclerotinia stem rot in canola	127,300
DAN00079	Risk assessment and preventative strategies for herbicide resistance in the northern grain region (Phase 2)	206,000
DAN00086	Assessment of IPM strategies to control insects in rotational farming systems of the southern region	50,125
DAN00095	<i>Helicoverpa</i> spp. insecticide resistance: Monitoring, mechanisms and management	91,061
DAN00099	The importance and control of thrips in faba beans in northern New South Wales	100,012
DAN485	Management of fusarium diseases and common root rot of cereals in the northern cropping zone	280,159
DAQ00073	Implementing technologies and strategies to maintain resistance to sunflower rust	189,806
DAQ00074	Facilitating integrated pest management adoption in Northern Region broadacre farming systems	150,000
DAQ00079	Modelling for sustainable glyphosate use in the Northern Region	104,000
DAQ00086	Integrated pest management for pulses in Northern Australia—Sustainable production in a changing cropping environment	142,489
DAQ00096	Emerging foliar wheat disease issues in the Northern Region	154,500
DAQ00097	Determining the cause, extent, impact and potential control measures for an unidentified disorder in sunflower crops in central Queensland	125,404
DAQ00105	Continued delivery of applied solutions to weed issues in central Queensland	109,620
DAQ00106	Herbicide tolerance of barley and wheat cultivars in the Northern Region (Phase 3)	75,000
DAQ00107	Cropping options to limit root lesion nematodes	109,933
DAQ00108	Reducing the impact of pulse diseases in the Northern Region	157,209

Project no.	Project title	Expenditure \$
DAS00070	Varietal herbicide tolerance in the Southern Region incorporating national coordination	90,000
DAS00071	Pathology in pulse crops in the Southern Region—South Australia module	143,175
DAS00072	Rhizoctonia management—Future directions for the Southern Region	70,000
DAS00073	Crown rot management for durum and bread wheats for the Southern Region	195,000
DAV00062	Victorian cereal pathology support with emphasis on crown rot management	246,680
DAV00078	Victorian pulse pathology and virology support program	120,040
DAW00106	Managing disease constraints in Western Region farming systems	599,125
DAW00114	Applied weed management in Western Australia	250,000
DAW00123	A systems approach to enhance the adoption of integrated weed management techniques in the northern agricultural region of Western Australia	201,620
DAW00124	Rotations to reduce impact of nematodes in western cereal-cropping systems	193,527
DAW00127	Crop pest management for farming systems in high-rainfall areas of southern Australia	151,363
DAW00131	Management of annual ryegrass using deleterious rhizobacteria	133,736
DAW00132	Improving the management of Diamondback moth ( <i>Plutella xylostella</i> ) in canola in the Western Region	109,989
DAW00134	Evaluating herbicide tolerance with new crop varieties	174,907
DAW00141	Developing a sensitive dry seed test to detect seed-borne viruses in bulk seed samples of wheat	174,786
DAW617	Weed control in crops using alternative technology to broadacre spraying systems	8,170
DNR00007	SIP08: Advanced techniques for managing subsoil constraints	100,320
HFG00005	Improving weed control options in conservation farming systems	169,300
IPM00002	Developing and demonstrating integrated pest management in broad-acre cropping	108,500
NPB00001	Evolution of Russian wheat aphid virulence and resistance sustainability	93,310
NPB00002	Enhancing the detection of <i>Tilletia indica</i> , the cause of Karnal bunt	99,958
NPB00003	Contingency plans for emergency plant pests of the grains industry	106,270
PR98	Project Review 2005—Grain Protection Genes	1,003
PR99	Project Review 2006—Crown rot	7,849
SFS00015	Optimising cereal profitability in the high-rainfall zone through the integration of disease management and canopy management principles	410,900
UA00071	Control and eradication of a parasitic weed, field trials	205,103
UA00075	Managing the risks of trifluralin resistance in no-till cropping systems	120,069
UA00088	Understanding and management of weed resistance to glyphosate	127,410
UBR00001	Fungicide resistance strategy	50,000
UM00015	Epidemiology and control of botrytis grey mould in lentils	55,147
UM00020	Strategies to ensure longevity of blackleg disease resistance genes in canola	100,200
UM00021	Monitoring populations of the blackleg fungus to develop strategies for deployment of resistance genes in oilseed brassicas	112,700
UM00022	Emerging mite pests in southern Australia	62,316
UM00026	Fungal pathology developments for management of oilseed brassicas in Australia	279,919
UMU00021	Australian Centre for Necrotrophic Fungal Pathogens—Disease resistance	50,000
UMU00022	Australian Centre for Necrotrophic Fungal Pathogens	433,814
UNE62	Field studies and management of crown rot in the Northern Region	100,864
UQ00032	Advanced application technology to manage spray drift and improve the efficacy of weed management practices	110,000
UWA00097	Improved herbicide tolerance for pulses in the Western Region	149,263
UWA399	Western Australian Herbicide Resistance Initiative—Phase 2	592,534
	<b>Total Crop Protection</b>	<b>11,334,558</b>



Project no.	Project title	Expenditure \$
	<b>VALIDATION AND INTEGRATION</b>	
AGM00001	Western Agribusiness Trial Extension Network	12,500
AGV00002	Northern Agribusiness Trial Extension Network	12,500
AOF00006	Oilseed Industry Support Program—Increasing the value of the Australian oilseeds industry through enhancing productivity and value	168,000
BBC00002	Review of central Queensland farming systems	6,369
BBC00003	High-rainfall Zone Coordinator	125,000
BWD00006	The 'REAL' Project—Relevant, experienced, applied learning	221,450
BWD00008	Flexible farming systems to meet the challenges of farming the southern Mallee and northern Wimmera	236,200
CFI00009	Guiding growers to more profitable and sustainable cropping systems in the western districts of the northern grain belt	152,610
COS00001	Northern Agribusiness Trial Extension Network	12,500
CSA00009	Plant available water content—Workshop delivery to growers	13,610
CSA00011	Training growers to manage soil water	246,932
CSP00009	Increasing farm profits in the high-rainfall zone using mixed cropping–grazing systems based on winter wheats	85,000
CSP00097	Managing crops, animals and crop disease in mixed-farming systems based on dual-purpose wheats	65,000
CWF00007	Central west farming systems—Extension and development	309,140
DAN00100	Northern Agribusiness Trial Extension Network	19,700
DAN00102	CropMate—Climate information for crop production	78,989
DAQ00049	Sustainable farming systems for central Queensland	740,031
DAQ00050	Eastern Farming Systems Project Phase 2 (EFSII)—A partnership for participatory RD&E in the north-eastern grains belt	562,752
DAQ00063	Viable and sustainable farming systems on ferrosols	184,485
DAQ00068	Networking innovation in grower groups	50,798
DAQ00091	Tool kits for BMP in peanuts—Development extension for rapid adoption of decision support using commercial industry networks	133,356
DAQ00103	Western Farming Systems 3 Queensland: Validation and integration of new technologies through grower groups in south western Queensland grain-growing region	129,870
DAQ00109	Barley industry development for the Northern Region	119,496
DAQ00116	Central Queensland sustainable farming systems—Phase 3	800,000
DAT00003	Enhancing TOPCROP and GRDC extension delivery in Tasmania	82,768
DAV00077	Barley agronomy and industry development for southern Australia	81,380
DAW00100	Pulse industry extension—Expanding pulse cropping by targeted extension of improved varieties and management packages	298,894
DAW00149	Barley industry development for the Western Region	77,995
DEL00001	Agribusiness Trial Extension Network	12,500
FFC00001	Western Agribusiness Trial Extension Network	12,500
FGI00002	Western Agribusiness Trial Extension Network	12,300
FGI00005	Western Agribusiness Trial Extension Network	10,690
FLR00002	FarmLink: Supporting the establishment of a new farming systems group for southern New South Wales	194,700
GSA00002	Northern Agribusiness Trial Extension Network	12,500
HBS00001	Agribusiness Trial Extension Network	12,500
HFG00004	Straight to the Hart—Profitable farming for the future	100,000
HOR00003	Western Agribusiness Trial Extension Network	12,500



Project no.	Project title	Expenditure \$
HOR00004	Linking knowledge—sharing information	200,000
ICF00004	Lifting irrigated cropping profitability and water use efficiency—Victoria	79,475
ICF00005	Lifting irrigated cropping profitability and water use efficiency—New South Wales	178,150
ICF00006	Oilseeds Industry Development Officer—Expansion of oilseed crops (with a focus on canola and soybean) for the irrigation and dryland areas of southern New South Wales and Victoria	130,000
ICF00007	High yield potential winter cereal genotypes for irrigated environments in eastern Australia	124,494
IMA00001	Agribusiness Trial Extension Network	11,375
IMA00002	Northern Agribusiness Trial Extension Network	12,300
JSA00002	Southern Agribusiness Trial Extension Network	25,000
JSR00001	Southern Agribusiness Trial Extension Network	12,500
KAL00001	Refinement of crop input and management strategies to optimise farm profitability and reduce risk	12,370
LIE00005	Growers critically analysing new technologies for improved farming systems	197,568
LWR00003	Healthy Soils for Sustainable Farms Programs	400,000
LWR23	Contribution towards Grain and Graze Program	496,000
MFI00001	Western Agribusiness Trial Extension Network	12,199
MFM00002	Increasing crop yields on Kangaroo Island and in the south-east of South Australia	156,200
MIG00008	The Grower Group Alliance—Innovation through grower groups	177,940
MSF00002	Mallee Sustainable Farming project	546,668
NFG00001	Western Agribusiness Trial Extension Network	12,500
NGA00001	Validation and integration of new technology through grower groups in north-west New South Wales and south-west Queensland grain-growing zones	327,020
OCR00001	Best practice benchmarking	120,594
PAL00007	Crop support for the northern and southern regions	343,910
PHR00001	Northern Agribusiness Trial Extension Network	12,500
PLN00003	Western Agribusiness Trial Extension Network	12,500
RAI00001	Western Agribusiness Trial Extension Network	9,000
RPI00003	Zonal management in the riverine plains	10,750
RPI00006	Improving winter cropping systems in the riverine plains	152,062
RSS00001	Farming systems improvement in the upper north of South Australia	111,930
SFP06.1	Grower group support	16,111
SFS00014	Investigating stubble management systems to reduce dependence on burning in the high-rainfall zone region of southern Australia	183,585
SFX00003	Western Agribusiness Trial Extension Network	12,500
SYN00001	Western Agribusiness Trial Extension Network	12,500
SYN00002	Western Agribusiness Trial Extension Network	12,500
UA00087	Eyre Peninsula Farming Systems Project 2	508,286
UNE00007	Graduate Certificate and Certificate in Sustainable Grains Production	66,025
UT00014	Addressing key limitations to the development of high-value grain crops in Tasmania	150,000
UWA00082	Improving the adoption of technology by neighbourhood grower groups	23,000
WAN00008	Western Australian No-Tillage Farmers Association technology demonstration site	100,000
YPA00001	Robust, profitable and sustainable farming practices on Yorke Peninsula	155,000
	<b>Total Validation and Integration</b>	<b>10,532,027</b>

Project no.	Project title	Expenditure \$
	<b>EXTENSION AND GROWER PROGRAMS</b>	
AFQ00005	Research advisory committees—Northern Region	72,500
AOF00004	Oilseeds Industry Development Officer—Expansion of oilseed crops (with a focus on canola and soybean) for the irrigation and dryland areas of southern New South Wales and Victoria	(30,000)
CCS01-1	GRDC customer database	2,607
CCS32-1	Grains Research Updates	10,000
CCS36-1	Website redevelopment	5,624
CRD00002	Drift management extension strategy for the Northern Region	75,000
DAW00150	Further development of the Crop Updates Partnership	99,657
DRL00001	Conversion of investment booklets for the GRDC website	3,000
GST00001	Agribusiness technology transfer	70,000
ICN00006	Grains Research Updates—Newsletter in the Northern Region	168,200
JAB00001	Website redevelopment services	60,000
JLC00011	GRDC Southern Region Crop Updates	322,000
NFA00005	Research advisory committees—New South Wales	26,000
OBR00001	Development and production of <i>Driving Agronomy 2006</i> audio CD	9,000
PSD36	Online technology dissemination	50,445
RDC14	Joint Farm Health and Safety Program	60,000
RMP00002	Development of <i>Grains Research Updates 2007</i> CD	40,555
RRA00001	GRDC Website Redevelopment Project	80,700
SAF00004	Research Advisory Committees—South Australia	26,000
UQ00034	Improving understanding and awareness of intellectual property amongst grain growers in Australia	199,950
VFF00006	Research advisory committees—Victoria	26,000
	<b>Total Extension and Grower Programs</b>	<b>1,377,238</b>
	<b>TOTAL PRACTICES</b>	<b>37,689,070</b>
	<b>NEW FARM PRODUCTS AND SERVICES</b>	
AGL00008	A scoping study into the state of knowledge and opportunities for investment in nitrogen fixation in cereal and canola crops arena in Australian crop rotation	100,000
ANU19	Development of specific microbial and transgenic technology to control fungal pathogens: A commercialisation project based on patent	193,192
AWR00004	Contribution towards the National Rhizobium Program	(319,265)
BRI00027	Objective grain quality testing	500,000
BRI00038	Engagement of Asian partners for hybrid baking project	44,000
CAD00001	Registration and commercialisation of new chemicals	30,000
CSE00035	Assessing limits of existing harvest bag technology under Australian conditions	179,775
CSE00040	Registration and extension of the use of new ethyl formate formulations on stored grain and structural treatment	218,024
CSE00041	Development of an integrated aeration–fumigation system	241,462
CSE00044	Identifying mechanisms involved in phosphate solubilisation and plant-growth promotion by <i>Penicillium</i> -based rhizosphere inoculants	140,076
CSP00050	Quantifying the effect of hydrogen gas on soil biota and crop performance	184,611
DAN00097	National independent quality assurance and germplasm maintenance for rhizobium inoculants	111,090
DAQ00083	Integration of biopesticides into integrated pest management against sucking pests	133,750
DAS00036	Inoculants for soil-borne disease control	178,500

Project no.	Project title	Expenditure \$
HAW00001	Purchase of shares from the high-amylose wheat joint venture company	308,500
NEM00001	Commercialisation of minor rhizobial strains	75,750
NP01-2	Biological Inputs for Profitable Farming—Philom Bios innoculum trials	24,258
NP15	Commercialisation costs	46,698
NP16-1	CFP&S Survey	6,032
PAL00009	Objective measurement of pulse qualities	50,000
PBA00001	Develop and market a range of inoculant products in Australia and the Asian regions designed to provide benefits to agricultural growers	(300,000)
RJH00001	National Output Development and Evaluation Project—GRDC Soil Biology Initiative	30,000
UCS00010	Feasibility study of native invertebrate parasitic nematodes for control of snails and slugs	76,154
UF00002	Application of actinomycete endophytes for improved grain yield	375,500
UMU00003	National Rhizobium Program—Managing rhizobia to maximise nitrogen fixation by legumes in agriculture	868,989
UWA00058	Biological indicators of soil quality	150,000
	<b>Total New Farm Products and Services</b>	<b>3,647,096</b>
	<b>NEW GRAIN PRODUCTS</b>	
ABB00001	Grains Microbial Baseline Survey	7,000
ARB00001	Crop Biofactories Initiative—International reference panel	27,000
CGF00001	Grain Foods CRC Ltd	750,000
CGF00002	Grain Foods CRC Ltd—Director Fees	25,000
CGF00003	National Lupin Allergy Project	70,000
CSA00012	Energy efficiency, self-sufficiency and production at farm to regional scale	9,407
CSE00030	Crop Biofactories Initiative	1,661,000
CSP00060	Starch Viscosity Project	181,428
CSP00084	Development of wheat with altered carbohydrate digestibility (starches) for food and industrial applications	(536,000)
CSP00088	Coeliac-friendly cereals Phase 3	179,030
DAN00075	Statistical analysis and data mining for the Premium Grains for Livestock Program	29,250
DAN00083	Resistance management of stored-grain insects in the Southern Region	152,100
DAQ00075	Optimising grain yield and quality: Integrating high moisture harvesting and grain storage strategies.	600,000
DAQ00090	Resistance monitoring and management—Northern Region	127,230
DAQ00098	Phosphine fumigation of cool grain	97,668
DAQ00115	Consultancy—A strategic approach to managing resistance to phosphine in the grains industry	78,000
DAW00129	Resistance monitoring and management—Western Region	97,215
EMF00001	Consultancy—A research trip and report on biomass ethanol technologies in North America and preliminary crop biomass mapping	75,175
EOB00001	Truegrain	30,000
GOG00001	GoGrains—Membership subscription	350,000
GOG00003	GoGrains—Health and nutrition	100,000
JCS00002	Benefit to Australian grain growers in the feed grain market	73,520
JPC00001	Crop Biofactories Initiative—International reference panel	66,328
NP02-1	Stored Grain Pest Resistance Management Initiative—Invoices	5,000
NP31-1	Contribution towards Industry Feed-Grain Partnership	70,750
NP32	GM pathway to market	52,384

Project no.	Project title	Expenditure \$
NPL00001	Scenario planning and feasibility for sunflower pectin	20,000
PCL00002	Enhancement of NIR calibrations for predicting the energy value of weather-damaged grains for pigs	100,032
PCL00003	Sorghum lines with enhanced starch availability for pigs and ethanol production	35,136
SBC00001	Crop Biofactories Initiative—International reference panel	10,672
SDD00001	GM pathway to market	250,500
SEP00003	Opening the harvest window—for yield, quality and profit on the south coast of Western Australia	75,000
SMC00001	Consultancy—GoGrains Health and Nutrition Ltd	20,000
TCC00001	Consultancy—Feed grains	647
VC01	Market intelligence: Existing	1,558
VC01-1	Market intelligence: Existing	33,677
WJM00003	Coordination of registration of grain storage chemicals	65,240
YEL00002	Facilitating investment in value-adding in Australia's grain industry—Extension	60,000
	<b>Total New Grain Products</b>	<b>5,050,947</b>
	<b>TOTAL NEW PRODUCTS</b>	<b>8,698,043</b>
	<b>BUILDING RESEARCH CAPACITY</b>	
AAC00003	Conference sponsorship—Agriculture Australia 2007	10,000
ACT00001	Conference sponsorship—Fifth Australian Controlled Traffic Farming Conference—CTF07	10,000
AFQ00006	Travel award—To attend the Thirteenth Australian Barley Technical Symposium	1,500
AIA00004	Conference sponsorship—Tomorrows Agricultural Scientist—Meeting the needs of industry	5,000
AIS00001	Conference sponsorship—2007 AFISC National Conference	6,000
ALA00001	Conference sponsorship—Twelfth International Lupin Conference	10,000
ANU00004	Environmental management systems in agriculture: A comparative analysis of initiatives in the European Union and Australia	10,000
ARL00006	Australian Rural Leadership Foundation	98,000
ATA46	Agricultural training award—to study at TAFE New South Wales Riverina Institute, Primary Industries Centre, North Wagga Wagga	3,000
ATA47	Agricultural training award—to study at TAFE New South Wales Riverina Institute, Primary Industries Centre, North Wagga Wagga	3,000
ATA48	Agricultural training award—To attend Australian Agricultural College Corporation, Emerald Campus	3,000
ATA49	Agricultural training award—To attend Western Australian College of Agriculture, Cunderdin Campus	3,000
BAE00014	Conference sponsorship—Outlook 2007	5,000
BRI00032	Research Horizons for Grain Leaders of the Future Course	147,800
BRS00010	Sponsorship of 2007 Science and Innovation Awards for Young People in Agriculture, Fisheries and Forestry	16,000
BWD00010	Travel award—To attend the agricultural expos, farmer group open days and agricultural learning centres in the United Kingdom	4,500
CFM00006	Conference sponsorship—Biofuels, Energy and Agriculture: Powering Towards Food Security?	5,000
CSD00002	BHP Billiton Science Awards 2007	20,000
CSO00039	Travel award—To attend the Sixth European Conference on Precision Agriculture	3,500
CSP00086	CSIRO Summer Student Program 2006–07	8,000

Project no.	Project title	Expenditure \$
CSP00092	Travel award—To participate and speak at the International Triticeae Mapping Initiative Workshop	3,500
CSP00093	Travel award—To attend the Bouyoucos Conference 2007—International Conference on the Origin of Soil Water Repellency	2,500
CSP00095	Travel award—To attend the Third International Conference of Quantitative Genetics	4,500
CWC00004	Conference sponsorship—Central West Conservation Farming Association Annual Conference and Field Day 2007 and associated Conservation Agriculture Alliance of Australian and New Zealand meeting	7,500
DAN00103	Conference sponsorship—Field measurement of nitrogen fixation	10,000
DAQ00111	Travel award—To attend the Eighty-seventh American Meteorological Society Annual Conference	2,000
DAQ00112	Travel award—To attend the Twelfth Australian Barley Technical Symposium	4,500
DAQ00113	Travel award—International travel as part of the GRDC Bruce McClelland Memorial Award	5,000
DAQ00114	Travel award—To attend the Society for Invertebrate Pathology Conference, Quebec, and United States Department of Agriculture Laboratory, Cornell University	8,589
DAS00077	Travel award—To attend the Second Conference on Precision Crop Protection	3,500
DAW00152	Travel award—To attend the Seventh Workshop of the Physical and Cultural Weed Control Working Group of the European Weed Research Society and a spray application technology course	3,000
DAW00153	Conference sponsorship—Thirteenth Australian Barley Technical Symposium	15,000
DAW00154	Conference sponsorship—Fifteenth Australian Research Assembly on Brassicas Conference	6,000
FLR00003	Travel award—To attend the Fifth Australian Controlled Traffic Conference	2,500
GCA00019	Travel award—To attend the International Federation of Agricultural Producers World Congress of Young Farmers	6,500
GRS100	Grains Industry Research Scholarship—(CUR) Wheat quality and product quality requirements for steamed breads and steamed buns made from soft and hard wheat	30,000
GRS101	Grains Industry Research Scholarship—(UWA) Metabolomic profiling in plants to understand the role of mitochondria in environmental stress tolerance	30,000
GRS102	Grains Industry Research Scholarship—(UWS) Managing competitive rhizobial populations of low effectiveness in New South Wales chickpea cropping soils.	30,000
GRS103	Grains Industry Research Scholarship—(UA) The isolation and characterisation of meiosis-specific proteins in bread wheat	30,000
GRS104	Grains Industry Research Scholarship—(UA) An examination of the role of the thioredoxin h family in the stress response of cereals	30,000
GRS105	Grains Industry Research Scholarship—(SWI) Investigation of the gene family encoding aquaporins, the protein channels regulating water movement, in wheat	30,000
GRS106	Grains Industry Research Scholarship (UMU)—Regulation of nitrogen fixation in <i>Sinorhizobium meliloti</i> on the annual pasture legume medicago	30,000
GRS107	Grains Industry Research Scholarship—(UWA) Wheat root architecture response to heterogeneous spatial and temporal supply of potassium	30,000
GRS108	Grains Industry Research Scholarship—(ANU) Characterisation of aluminium tolerance genes in crop plants	30,000
GRS109	Grains Industry Research Scholarship—(UWA) Physiological and molecular basis of salt tolerance in <i>Lotus glaber</i> , a new perennial pasture legume for salt-affected land	30,000
GRS110	Grains Industry Research Scholarship—(UWA and CSP) Molecular and genetic study of plant resistance to aphid	30,000
GRS114	Grains Industry Research Scholarship—(UQ) Discovery of genes involved in transmitting the long-distance RNA silencing signal	30,000
GRS115	Grains Industry Research Scholarship—(ULA) Characterisation on the XERO2 system in <i>Araidopsis thaliana</i>	30,000

Project no.	Project title	Expenditure \$
GRS116	Grains Industry Research Scholarship—(UMU) The role of secondary metabolites of the model legume, <i>Medicago truncatula</i> , in plant defence	30,000
GRS117	Grains Industry Research Scholarship—(RMIT) Ingredients, fortification and colour characteristics of instant noodles	30,000
GRS118	Grains Industry Research Scholarship—(USC) Nanotechnology and locked nucleic acid probes for DNA diagnostics and genotyping in grains	30,000
GRS119	Grains Industry Research Scholarship—(SWI) Investigations of wheat genes encoding immunophilins involved in regulations of storage protein folding	30,000
GRS120	Grains Industry Research Scholarship—(UM) Population genetics of the lucerne flea with applications for biocontrol	30,000
GRS121	Grains Industry Research Scholarship—(UM) Sustainable resistance of <i>Brassica napus</i> to <i>Leptosphaeria maculans</i>	16,314
GRS123	Grains Industry Research Scholarship—(UQ) Genetic control of long-distance RNA silencing in plants	10,000
GRS124	Grains Industry Research Scholarship—(UQ) Novel genes regulating plant defence	8,750
GRS125	Grains Industry Research Scholarship—(QUT) Characterisation of the NF-Y family of transcription factors in wheat	10,000
GRS126	Grains Industry Research Scholarship—(UWA) Intellectual property rights and the optimal allocation of an agricultural R&D investment portfolio	8,750
GRS127	Grains Industry Research Scholarship—(CUR) Adaptations for growing wheat in a drying climate	11,250
GRS128	Grains Industry Research Scholarship—(UMU) A bioinformatics approach for identification of pathogenicity factors and fungicide targets in <i>Stagonospora nodorum</i> and closely related necrotrophic fungi	11,250
GRS129	Grains Industry Research Scholarship—(UA-ACFPFG) Characterisation of transcription factors important in regulating salinity tolerance	10,000
GRS130	Grains Industry Research Scholarship—(UM) Integrated and sustainable control of pest mite species	10,000
GRS131	Grains Industry Research Scholarship—(US) Novel plasmodesmatal proteins and their role in transport in plants	10,000
GRS132	Grains Industry Research Scholarship—(UNS) Amelioration of irrigation salinity for wheat cultivation using cyanobacteria and mycorrhizal fungi	12,500
GRS67	Grains Industry Research Scholarship—(UA) QTL determination under association mapping	3,125
GRS80	Grains Industry Research Scholarship—(UM) Fortuitous biological control as a sustainable provider of pest control	34,500
GRS81	Grains Industry Research Scholarship—(US) Genetic and pathogenic variation in field population of the crown rot fungus ( <i>Fusarium pseudograminearum</i> )	20,000
GRS82	Grains Industry Research Scholarship—(UMU) Disease resistance to phytophthora in <i>Medicago truncatula</i>	26,250
GRS83	Grains Industry Research Scholarship—(ULA) Pollen development in plants	5,000
GRS84	Grains Industry Research Scholarship—(CSP-UQ) Isolation and characterisation of transcription factors from wheat involved in drought adaptation	33,750
GRS85	Grains Industry Research Scholarship—(UWA) The biology and control of <i>Salsola tragus</i>	27,500
GRS86	Grains Industry Research Scholarship—(UWA) Host Plant Resistance in <i>Medicago truncatula</i> (Leguminosae) to <i>Acrythosiphon pisum</i> (Aphididae).	27,500
GRS87	Grains Industry Research Scholarship—(RMIT) Enhancing crop utilisation through chloroplast targeted expression of cellulase genes in plants	18,750
GRS88	Grains Industry Research Scholarship—(UM) Biosynthesis and role of fungal toxins in blackleg disease of canola	28,750

Project no.	Project title	Expenditure \$
GRS89	Grains Industry Research Scholarship—(RMIT) Molecular interactions during preparation of Asian noodles and manipulation of nutritional and organoleptic characteristics	15,000
GRS90	Grains Industry Research Scholarship—(US) Precision agriculture and whole-farm planning for sustainability	30,000
GRS91	Grains Industry Research Scholarship—(CSIRO Molecular Science) Lignin from various straws as a renewable source of monomer (and other feedstock chemicals)	23,959
GRS94	Grains Industry Research Scholarship—(CSP-UQ) Wheat with enhanced resistance to fusarium diseases	17,500
GRS99	Grains Industry Research Scholarship—(UMU) Metabolism and infection in the <i>Stagonospora nodorum</i> -wheat pathosystem	30,000
ICA00005	Travel award—To attend the Ninth International Conference on the Ecology and Management of Alien Plant Invasions	2,665
IDA00006	Industry Development Award—Beyond the boundaries study tour	1,425
IDA00011	Industry Development Award—Exchanging ideas with the successful Victorian cropping group	(3,474)
IDA00016	Industry Development Award—Finding the balance	7,600
IDA00017	Industry Development Award—Victorian no-till study tour	6,000
IDA00018	Industry Development Award—Can reduced tillage, stubble retention and rotation improve my farming system?	15,000
IDA00019	Industry Development Award—Information exchange tour	9,000
IDA00020	Industry Development Award—Lessons from the United States: Exploring the United States—Canada soybean, peanut and alternative fuels industries to identify opportunities for the Australian grain and cane industry	5,000
IDA00021	Industry Development Award—Southern Victoria agriculture tour	3,800
ILC00001	Conference sponsorship—2006 International Landcare Conference	4,545
IST47	In-service Training Award—(DAV) Challenges of advancing conservation agriculture on Kenya's farmlands	5,000
NAS00002	Conference sponsorship—Fourteenth Australian Soybean Conference: Success with Soybeans	5,000
NUF00008	Nuffield Farming Scholarships	135,000
NYS2	Australian Nuffield Farming Scholars Association—Scholarships	25,000
OIW00001	Conference sponsorship—Grains West Expo 2007	7,500
PAL00013	Travel award—To attend the CICILS International Pulse Industry Confederation Executive meeting and annual convention	3,000
PSD25-1	Knowledge management	39,996
RCI00004	Conference sponsorship—Fifty-seventh Australian Cereal Chemistry Conference	5,000
RWF00008	Capacity audit	25,000
SAF00005	Conference sponsorship—South Australian Farmers' Federation Grains Council Annual General Meeting 2007[	3,000
SAN00014	Conference sponsorship—Ninth Annual South Australian No-till Farmers Association Conference 2007	7,500
SF25	Senior Fellowship—(CSA) What prospects for increased on-farm grain productivity in Australia?	20,000
SFS00005	Developing Leadership Skills in Young Growers	17,000
UA00096	Conference sponsorship—Sixteenth Biennial Australasian Plant Pathology Society Conference	8,000
UAH00002	Travel award—To attend the Hart Field Trial site	650
UHS108	Undergraduate Honours Scholarship—(UWA) Topdressing of legumes with dry granular inoculum, ALOSCA	6,000



Project no.	Project title	Expenditure \$
UHS109	Undergraduate Honours Scholarship—(UWA) Small chaperone proteins in mitochondria for protection of plant respiration during stress	6,000
UHS110	Undergraduate Honours Scholarship—(UWA) Investigation of possible non-target site resistance mechanisms endowing atrazine resistance in wild radish populations	6,000
UHS111	Undergraduate Honours Scholarship—(UWA) Examining the cross-resistance patterns of diflufenican-resistant wild radish populations	6,000
UHS112	Undergraduate Honours Scholarship—(UF) Investigation of flax rust resistance R/Avr protein interactions in vitro	6,000
UHS113	Undergraduate Honours Scholarship—(ULA) Identification of secreted proteins, produced by the recalcitrant fungus, <i>Sclerotinia sclerotiorum</i> , that contribute to canola white rot disease	6,000
UHS114	Undergraduate Honours Scholarship—(UWA) Low-input versus high-input farming systems: their relative performance	6,000
UHS115	Undergraduate Honours Scholarship—(UQ) Selection for dormancy in white-grained wheat: Progress towards preharvest sprouting resistance	6,000
UHS116	Undergraduate Honours Scholarship—(UA) Fungal gene expression in the <i>Rhynchosporium secalis</i> -barley interaction	6,000
UHS98	Undergraduate Honours Scholarship—(UM) Establishment and early growth of <i>Brassica napus</i> and <i>Brassica juncea</i>	6,000
UT00011	Building Human Capacity: Linking schools to universities through to primary industries	150,000
UWA00107	Travel award—To attend the Twelfth International Rapeseed Congress	2,170
UWA00108	Travel award—To attend and present at the Fifty-first Annual Conference of the Australian Agricultural and Resource Economics Society	1,600
UWA00109	Travel award—To attend the Fifth International Rothamsted Research Resistance Conference 2007	2,500
VF00006	Visiting Fellowship Award—(UNS) Dynamics and control of Autonomous Tractor-implement Systems	6,000
VF00007	Visiting Fellowship Award—(ACP) Genetic studies of drought tolerance in wheat	12,100
VF00008	Visiting Fellowship Award—(DAW) Characterisation of low-phytic acid wheat and barley	17,500
VIC00006	Conference sponsorship—GRDC Irrigation Update 2007	3,500
WAF00005	Conference sponsorship—WA Farmers Annual Conference 2007	3,000
WAN00014	Conference sponsorship—Sixteenth Annual Western Australian No-Tillage Farmers Association Conference 2007	7,500
	<b>Total Building Research Capacity</b>	<b>2,081,364</b>
	<b>CORPORATE COMMUNICATIONS</b>	
BCA00002	Western Region Communicator 2003–06	814
BCA00003	Western Region Communicator Services	126,000
BER00005	International Research Review	30,300
BMP00001	Printing of the Birchip Cropping Group's <i>Managing Herbicide Resistant Ryegrass</i> booklet[	13,235
CAN00002	Warehousing and distribution of GRDC publications, periodicals and promotional material	50,000
CCS26	Information products and services performance analysis	(7,274)
CCS27-1	Design, production and printing of CD ROM material	11,855
CCS27-2	Frost booklet	20,000
CIC00003	Northern Region Communicator Services	74,965
COR00007	<i>Ground Cover</i> newspaper	1,108,050
COR00008	<i>Ground Cover</i> supplements	213,996
COR00009	<i>Ground Cover Direct Publications Catalogue 2006</i>	16,378



Project no.	Project title	Expenditure \$
COR00010	GM biotechnology booklet 2007	186,921
COR00011	Repurposing of research report information for a grower audience	164,000
COR00012	Regional fact sheet for growers	173,000
DER00009	Component 1—Grower group discussions to evaluate effectiveness of GRDC information products and services	40,650
DER00010	Component 2—Qualitative leading grower and opinion leader study to evaluate effectiveness of GRDC information products and services	12,700
DER00011	Component 3—Quantitative grower study to evaluate effectiveness of GRDC information products and services	44,200
JLC00012	Design and printing of snail grower fact sheet	2,980
KDI00016	A Guide to Grain Market Lingo or similar title of publication	55,580
MAA00005	<i>The Cob</i> magazine	10,000
MAD00001	GRDC rust audit	5,850
PAL00012	Pulses in stock feed	13,200
PIG00003	Partners in grain	190,000
PIG00004	PinG Database	10,000
PNS00002	Southern Region Communicator Services	213,050
PSD01.1	Corporate communications	70,314
PSD21	Communication campaigns and information packaging	9,843
PSD22	<i>Farming Ahead</i> articles	62,495
RSS00002	Succession planning guide	67,000
RSS00003	Insect Ute Guide—Southern Region Version 2	75,000
RSS00004	Canola Ute Guide Version 2	51,500
SDG00001	Development of the GRDC style guide	18,000
WDM00007	Paddock Diary 2006–07, 2007–08 and 2008–09	67,550
	<b>Total Corporate Communications</b>	<b>3,202,152</b>
	<b>TOTAL COMMUNICATION AND CUSTOMER SERVICES</b>	<b>5,283,516</b>
	<b>ENHANCED MANAGEMENT</b>	
AAA00005	Increasing informed debate and decision making about gene technology	100,000
BAE00013	Expert advice for the economic and strategic development of the Australian grains industry	540,000
GRD199	Single Vision Grains Australia Interim Board	920,593
GRD43-1	Funding support for Feed Grain Stock Survey	22,728
	<b>TOTAL ENHANCED MANAGEMENT</b>	<b>1,583,321</b>
	<b>GRAND TOTAL</b>	<b>103,024,322</b>

ACFPG = Australian Centre for Plant Functional Genomics, ACIAR = Australian Centre for International Agricultural Research, ANU = Australian National University, AWCMMP = Australian Winter Cereals Molecular Marker Program, CRC = cooperative research centre, CSA = CSIRO Sustainable Ecosystems, CSIRO = Commonwealth Scientific and Industrial Research Organisation, CSP = CSIRO Plant Industry, CUR = Curtin University of Technology, CIMMYT = International Maize and Wheat Improvement Centre, DAFWA = Department of Agriculture and Food, Western Australia, GM = genetically modified, ICARDA = International Centre for Agricultural Research in the Dry Areas, MPBCRC = Molecular Plant Breeding Cooperative Research Centre, NIR = near-infrared spectroscopy, QUT = Queensland University of Technology, RD&E = research, development and extension, RMIT = Royal Melbourne Institute of Technology, SWI = Swinburne University of Technology, QTL = quantitative trait loci, UA = University of Adelaide, UF = Flinders University, TAFE = College of Technical and Further Education, ULA = La Trobe University, UM = University of Melbourne, UMU = Murdoch University, UQ = University of Queensland, US = University of Sydney, UWA = University of Western Australia, UWS = University of Western Sydney

## Appendix 4: Joint R&D project list

**Table A4.1** Joint R&D projects, 2006–07

R&D Partners	Project	Project title	Start date	Finish date
ACIAR, GRDC	ACA4	Pulse project with ICARDA	01-Jul-01	30-Jun-07
ACIAR, GRDC	ACA5	Oilseed brassica improvement in China, India and Australia	30-Jun-02	30-Jun-07
AGO, Agriculture and Food WA, GRDC	DAW00103	Measurement of paddock-based greenhouse gas emissions from wheat production to improve life cycle assessment of wheat products	31-Dec-03	30-Jun-09
AGO, DPI Victoria, GRDC	DAV00081	Assessment of greenhouse gas emissions in cereal–legume cropping systems in Southern Australia	01-Jul-06	30-Jun-09
AGO, GRDC	AGO00002	AGO contribution towards DAW00103 Measurement of paddock-based greenhouse gas emissions from wheat production to improve life-cycle assessment of wheat products	31-Dec-03	1-Jan-08
AGO, GRDC	AGO00003	AGO contribution towards UM00028 Indirect greenhouse gas emissions from wheat–sheep farming systems	12-Jun-06	12-Jun-09
AGO, GRDC	AGO00004	AGO contribution towards UM00027 Effect of elevated carbon dioxide on wheat-based production systems under Australian field conditions	01-Jun-06	30-Jun-10
AGO, GRDC, UM	UM00027	Effect of elevated carbon dioxide on wheat-based production systems under Australian field conditions	01-Jun-06	30-Jun-10
AGO, GRDC, UM	UM00028	Indirect greenhouse gas emissions from wheat–sheep farming systems	12-Jun-06	12-Jun-09
ANU, CSIRO, DEST, GRDC, University of NSW, University of Queensland, University of WA	NYS2	National Youth Science Forum 2004–2007	01-April-04	30-Jun-07
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	DAN00075	Statistical analysis and data mining for the Premium Grains for Livestock Program	01-Jan-05	30-Jun-08
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	JCS00001	Premium Grain Livestock Program Technology Transfer and Commercialisation: Commercial evaluation of new measures of feed grain quality	01-Jan-05	31-May-07
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	JCS00002	Benefit to Australian grain growers in the feed grain market	01-Apr-07	31-Oct-07
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	JLB2	Premium Grains for Livestock Program: Component 1—Coordination	01-Jul-00	30-Jun-08
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	KSS00001	Premium Grains for Livestock Program NIR case study	01-Jan-06	31-May-07

**Table A4.1** Joint R&D projects, 2006–07 (continued)

R&D Partners	Project	Project title	Start date	Finish date
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	PCL00002	Enhancement of NIR calibrations for predicting the energy value of weather-damaged grains for pigs	01-Sep-06	31-Aug-09
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	TCC00001	Consultancy—Feed grains	01-Jul-05	30-Jun-07
APL, CSIRO, DPI Victoria, GRDC, MLA, NSW Agriculture, RIRDC, SARDI, UNE, US	US312	Premium Grains for Livestock Program: Component 2—Production, storage and distribution of grain samples	01-Jul-00	30-Jun-08
AWI, DA, GRDC, MLA, RIRDC	AWR00002	Pastures Australia	30-Jun-06	30-Jun-07
AWI, GRDC	AWR00004	National Rhizobium Program	01-July-05	30-Jun-08
AWI, GRDC	DAN00097	National independent quality assurance and germplasm maintenance for <i>Rhizobium</i> inoculants	01-Jul-05	30-Jun-08
AWI, GRDC	UMU00003	National Rhizobium Program—developing and delivering high-quality rhizobial inoculants to the Australian grains and pasture industries	01-July-02	30-Jun-08
CRDC, GRDC	CRD00002	Drift management extension strategy for the Northern Region	01-Jul-06	30-Jun-07
DAFF, GRDC	AFF00003	Corporate Governance for Women sponsorship	01-Jun-06	30-Jun-07
FRDC, GRDC	FRD00001	Aquaculture Nutrition Subprogram—Maintenance of strategic directions, project and infrastructure development, and facilitation of nutrition research and extension across all Australian aquaculture sectors	01-Jul-04	30-Jun-07
GRDC, ICARDA	DAN00064	Durum industry development—Collaboration with ICARDA to accelerate cultivar improvement for adaptation across all production regions	01-Jul-04	30-Jun-08
GRDC, LWA	LWR00002	Knowledge management in irrigated cotton and grains	22-Mar-05	30-Jun-07
GRDC, LWA	LWR00003	Healthy Soils for Sustainable Farms Program	01-Jul-06	30-Jun-09
GRDC, LWA	LWR23	Grain and Graze Program	01-Jul-03	30 Jun-08
GRDC, LWA	LWR25	Managing Climate Variability Program	01-Jul-03	30 Jun-07
GRDC, MLA	MLA00001	Pasture Soil Biology Program	01-Jul-03	30 Jun-07
GRDC, RIRDC	RDC14	Joint Farm Health and Safety Program	01-Jul-02	30 Jun-07

ACIAR = Australian Centre for International Agricultural Research, AGO = Australian Greenhouse Office, ANU = Australian National University, APL = Australian Pork Limited, AWI = Australian Wool Innovation Limited, CRDC = Cotton Research and Development Corporation, DA = Dairy Australia, DAFF = Department of Agriculture, Fisheries and Forestry, DEST = Department of Education, Science and Training, DPI Victoria = Department of Primary Industries Victoria, FRDC = Fisheries Research and Development Corporation, ICARDA = International Centre for Agricultural Research in the Dry Areas, LWA = Land and Water Australia, MLA = Meat and Livestock Australia, NIR = near infra-red, RIRDC = Rural Industries Research and Development Corporation, SARDI = South Australian Research and Development Institute, UM = University of Melbourne, UNE = University of New England, UQ = University of Queensland, US = University of Sydney

## Appendix 5: Publications and products

The GRDC has a large number of publications and information products, in print and electronic formats. Many hard copy products are provided for free (stocks of some free publications are limited), while others are sold to fully or partially recover the costs of publication. Some publications are available only in electronic format, and can be found on the GRDC's website at [www.grdc.com.au](http://www.grdc.com.au).

Ground Cover direct also provides a catalogue of GRDC publications and an online bookshop. On average, the GRDC's website home page received between 4,000 and 6,500 page views per month in 2006–07. The bookshop received approximately 2,400 page views per month.

Most of the GRDC's 2006–07 reports and publications are publicly available. Key publications released in 2006–07 are listed below.

**Table A5.1 Publications available to the public free of charge**

<b>Corporate publications</b>	GRDC Annual Report 2005–06 GRDC Growers' Report 2005–06 GRDC Annual Operational Plan 2006–07
<b>Farmer advice sheets— Information for grain growers</b>	<i>Snails alert</i>
<b>Ground Cover—The grains industry research newspaper</b>	Six issues and supplements: 63—Growers sharing knowledge 64—No-till 65—Grains nutrition 66—Root and crown diseases 67—Climate 68—Integrated weed management
<b>Identification guides for grain growers</b>	<i>Wheat and barley leaf symptoms: The Back Pocket Guide</i> (revised and reprinted) <i>Slugs: The Back Pocket Guide</i>
<b>Reviews of research</b>	<i>Pulses nutritional value and their role in the feed industry</i>
<b>Tools for grain growers</b>	<i>A guide to succession—sustaining families and farms</i> <i>Agronomy after the drought 2007</i> <i>Agronomy after the drought—a guide to decision making in 2007— Southern Region</i> <i>Driving agronomy 2006</i> (audio CD) <i>Grains research updates 2007</i> (DVD) <i>Paddock diary 2007</i> <i>Precision agriculture 2007</i> (video CD)
<b>Information for technical advisers</b>	<i>Update</i> newsletter, issues 32, 33, 34, 35, 36 and 37, for the Northern Region <i>Update</i> newsletter, issues 42, 43, 44, 45, 46 and 47, for the Southern Region

**Table A5.2 Publications available for sale to the public**

<b>Booklets</b>	<i>Making Lucerne Pay</i> <i>Perennial Pastures for Western Australia</i>
<b>Identification guides for grain growers</b>	<i>Canola: The Ute Guide</i> (revised edition)

# References

Glossary	156
Compliance index	158
Alphabetical index	160



2006–07	The financial year 2006–07—that is, 1 July 2006 to 30 June 2007.
AB	ascochyta blight
ABARE	Australian Bureau of Agricultural and Resource Economics
abiotic stress	Stress caused to living organisms by non-living environmental factors, such as cold, heat or drought.
ACPFPG	Australian Centre for Plant Functional Genomics
AGT	Australian Grain Technologies Pty Ltd
AME	apparent metabolisable energy
BBA	Barley Breeding Australia
biotic stress	Stress caused to living organisms by other living organisms, such as viruses, bacteria, insects or fungi.
CAC Act	The <i>Commonwealth Authorities and Companies Act 1997</i> , which is complemented by the Commonwealth Authorities and Companies (Report of Operations) Orders 2005—orders made by the Finance Minister concerning the report of operations component of annual reporting.
cereal crops	Members of the grass family grown for their edible, starchy seeds—for example, wheat, barley, oats, rye and triticale.
CIMMYT	International Maize and Wheat Improvement Center, Mexico
CRC	cooperative research centre
CRCNPB	Cooperative Research Centre for National Plant Biosecurity
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFWA	Department of Agriculture and Food, Western Australia
DPI Victoria	Department of Primary Industries Victoria
<i>Driving Innovation</i>	The GRDC Five Year Research and Development Plan 2002–07
EGA	Enterprise Grains Australia
EGC	Export Grains Centre Ltd
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
EPR	End Point Royalty
GM	genetically modified
GPS	Global Positioning System
GRDC	Grains Research and Development Corporation
<i>Ground Cover</i>	A free newspaper produced by the GRDC, with six editions each year
Harvest Radio	The GRDC's web-based service that provides technical information for grain growers, including updates on research, trials, new varieties and farmer activities, and case studies.

ICARDA	International Centre for Agricultural Research in the Dry Areas, Syria
IPM	integrated pest management
IWM	integrated weed management
MCVP	Managing Climate Variability Program
MIR	mid-infrared
NIR	near-infrared spectroscopy
NSWDPI	New South Wales Department of Primary Industries
NVT	National Variety Trials
PHA	Plant Health Australia
phosphine	A colourless gas with a strong fishy smell, used as a pesticide.
PIERD Act	<i>Primary Industries and Energy Research and Development Act 1989</i>
podcasting	Distributing information through digital audio or video files available for download through the internet.
precision agriculture	The use of spatial information (such as yield maps) to better match crop agronomy techniques, such as fertiliser application, to paddock variations.
<i>Prosperity through Innovation</i>	The GRDC's Strategic R&D Plan 2007–12.
pulses	The edible seeds of certain pod-bearing plants, such as peas and beans.
QDPIF	Queensland Department of Primary Industries and Fisheries
R&D	research and development
RD&E	research, development and extension
SOE	Statement of Expectations
SOI	Southern Oscillation Index
SSC	subsoil constraint
SST	sea surface temperatures
SVGA	Single Vision Grains Australia
<i>The Way Forward</i>	The GRDC's strategic business plan.
UT	University of Tasmania
VDA	value driver analysis
WSMV	wheat streak mosaic virus

## CAC Act requirements

- Annual Operational Plan 10, 13, 18, 22, 25, 81
- Audit Committee (*see* Finance, Risk and Audit Committee)
- Auditor-General's Report 82, 98, 99
- Chair's signoff 2
- Corporate governance
  - framework 84
  - statement 10
- Corporate Plan/R&D Plan (*see* Annual Operational Plan above)
- Developments since end of financial year, affecting
  - operations in future financial years 14, 113
  - results of those operations in future financial years 113
  - state of affairs in future financial years 113
- Directors
  - particulars 86–89
  - access to independent advice 90
  - induction and training 90
  - meetings held 89
  - selection 89
  - meeting attendance 89
  - conflict of interest 90
- Directors' statement 100
- Disability strategy 96
- Enabling legislation 6, 10
- Finance, Risk and Audit Committee 89
- Financial Statements 98–126
- Five Year Research and Development Plan 10, 12, 15, 68
- Future prospects 12–13
- Government policies (CAC Act, s. 28) 11, 80
- Indemnities and insurance premiums for officers 85
- Influences on performance (factors, events and trends)
  - factors, events or trends 1
  - risks and opportunities 45, 84
- Judicial decisions and reviews by outside bodies 83
- Legislative functions 6, 80–83
- Legislative objectives 6, 80–83
- Location of major activities and facilities 6–9, 93–95
- Ministerial directions, effects 12, 80
- Names of responsible ministers 80
- Operational and financial results
  - principal outputs 16–17, 31–69
  - major investing and financial activities 70–74
  - key financial and non-financial performance indicators 1, 20–22
- Organisational structure 7–8



## Performance assessment

- efficiency and effectiveness in producing outputs 20–22, 27–30, 39–40, 49–50, 57–58, 65–66
- clear links between outcomes, strategies and principal outputs 12–13

## Review of Operations (form and content set out in CAC Orders)

- performance review 20–69
- statutory objectives and functions 6, 80–83
  - Corporate Plan 10, 13, 18, 22, 25, 81
- principal outputs and contribution to outcomes 16–17, 20–69

## Service Charter 85

## Significant changes in state of affairs and/or principal activities 14–15

## Significant events (CAC Act, s.15) 16–18

## Stakeholders 80

## Subsidiaries 74

### **PIERD Act requirements**

#### Acquisition and disposition of real estate 109–110

#### Annual Operational Plan implementation 10, 13, 18, 22, 25, 81

#### Commercial activities 70–74

#### Companies in which the GRDC has an interest 73–74

#### Five Year Research and Development Plan 10, 12, 15, 68

#### Funds

- source 81, 101
- expenditure 84, 104

#### Legislative objectives 6, 80–83

#### R&D activities 1, 14–15, 25 (*see also* performance assessment)

#### Selection Committee Report 88

### **Other reporting requirements**

#### Fraud control 84

#### Funding of consultation costs for Grains Council of Australia 81–82

#### Government's R&D priorities incorporated into the Annual Operational Plan 10, 12–13, 15, 20–22, 25–30, 31–67, 128–131

#### Intellectual property management 74

#### Risk management 84

#### Statement of Expectations 11, 18, 80

#### Statement of Intent 11, 18, 80

### **Other legislative requirements**

#### Ecologically sustainable development and environmental performance 75–77, 85

#### Disability strategy 96

#### *Equal Employment Opportunity (Commonwealth Authorities) Act 1987* 95

#### *Freedom of Information Act 1982* 85

#### *Occupational Health and Safety (Commonwealth Employment) Act 1991* 96

#### *Privacy Act 1988* 85

- a**
- abiotic stress, **35, 41, 81**
  - accountability
    - to Australian Government, **80**
    - to grains industry, **81**
  - accountability and reporting obligations, **82**
  - achievements, **15**
    - key, **16–17**
    - Output Group 1: Varieties, **39**
    - Output Group 2: Practices, **49**
    - Output Group 3: New Products, **57**
    - Output Group 4: Communication and Customer Services, **65–66**
    - promotion of, **13**
    - against stakeholder priorities, **27–30**
  - Acumen Alliance, **84**
  - advisory panels, **91**
    - see also* National Panel; regional panels
  - Agribusiness Trial Extension Network, **45**
  - Agricultural Production Simulation Model (APSIM), **76, 77**
  - agronomic benefits, **41**
  - agronomic packages for new crop varieties, **49**
  - Agronomy after the drought—a guide to decision making in 2007*, **65**
  - agronomy and soils
    - project list, **137–140**
  - Alberta Agriculture Funding Consortium, Canada, **24**
  - alignment with customers and stakeholders, **ii, 17**
  - alliances
    - international, **12, 24, 34, 40**
    - market, **26, 27, 81**
    - national, **34, 39**
  - Annual Operational Plan, **18, 22, 81**
  - Annual Report 2005–06, **18**
    - award for, **17**
  - apparent metabolisable energy (AME), **53**
  - APSoil (database), **77**
  - Aquaculture Nutrition Subprogram, **23**
  - Arista Cereal Technologies Pty Ltd, **ii, 17, 18, 21, 24, 27, 53, 58, 71**
  - ascochyta blight, **45**
  - Ashton<sup>Ⓛ</sup>, **28, 33, 39, 71**
  - Asociación de Cooperativas Argentinas, Argentina, **24**
  - Auditor-General
    - Independent Auditor's Report, **83, 98–99**
  - Australian Association of Agricultural Consultants
    - Western Australia, **46**
  - Australian Bureau of Agricultural and Resource Economics (ABARE), **20**
  - Australian Centre for International Agricultural Research, **24**
  - Australian Centre for Plant Functional Genomics Pty Ltd (ACPPFG), **12, 15, 18, 28, 29, 34, 35, 39, 40**
  - Australian Cereal Rust Control Program, **45**
  - Australian Government research priorities
    - expenditure on, **129–131**
    - see also* National Research Priorities; rural R&D priorities
  - Australian grain growers' R&D priorities *see* grains industry R&D priorities
  - Australian Grain Technologies Pty Ltd (AGT), **31, 32**
  - Australian Grains Industry* reports (ABARE), **20**
  - Australian Greenhouse Office, **17, 27, 49, 76**
  - Australian Lucerne Alliance, **15**
  - Australian National Audit Office, **11, 84**
  - Australian National Genetic Resources Centre (ANGRC), **34**
  - Australian Pastoral Research Trust, **61, 66**
  - Australian Pesticides and Veterinary Medicines Authority, **56**
  - Australian Rural Leadership Foundation (ARLF), **66**
  - Australian Science Teachers Association, **61**
  - Australian Seed Federation, **32**
  - Australian Winter Cereal Molecular Marker Program (AWCMMP), **12, 28, 29, 39, 40**
  - Australian Winter Cereals Pre-Breeding Alliance, **ii, 15, 16, 21, 27, 34, 35**
  - Australian Wool Innovation Ltd (AWI), **62, 65**
- b**
- barley, **34**
    - GM, **36**
    - new varieties, **12**
    - see also* beta-glucans; Flagship<sup>Ⓛ</sup>
  - Barley Breeding Australia (BBA), **ii, 12, 15, 16, 32, 39, 40**
  - barley breeding project list, **135–136**
  - barley quality testing, **13**
  - barley stripe mosaic virus, **48**
  - barley stripe rust, **46, 48**
  - BBA North, **32**
  - BBA South, **32**
  - BBA West, **32**
  - bee silk, **55**
  - beta-glucans, **ii, 17, 35**
  - BHP Billiton Science Awards, **61, 66**
  - Binnu<sup>Ⓛ</sup>, **32, 71**
  - biodiversity
    - measurement of in mixed farming systems, **75**
  - Biodiversity in Grain and Graze project, **75**
  - Bioenergy Australia, **28, 54, 55, 58**
  - biofuels, **13, 28, 54, 58, 78**
  - biomass ethanol, **28, 54, 58**
  - biosecurity *see* risk management
  - biotechnology, **26, 28, 81**
  - biotic stress, **41, 81**
  - blackleg fungus
    - acquisition of genome sequence of, **ii, 17, 28, 50**
  - Blake Dawson Waldron, **90**
  - Board, **8, 86–90**
    - Chair, **86, 88**
    - see also* Report by Chair and Managing Director
  - committees, **88–89**
  - disclosure of interest, **90**
  - and independent professional advice, **90**
  - induction and training, **90**

meetings, 89  
 members, 86–88  
 performance monitoring and review, 90  
 roles, responsibilities and code of conduct, 90  
 Secretary, 88  
 Boomer<sup>Ⓛ</sup>, 33, 71  
 'Brassica A' genome sequencing program, 35  
 bread wheat, 34, 40  
 breeding technologies  
   new, 12  
 BRI Australia Ltd, 52  
 building research capacity  
   project list, 146–150  
 Bureau of Meteorology, 76  
 business process review, 68  
 business relationships, 73–74

**C**

canola, 33  
 GM, 35  
 new varieties, 12, 40  
*see also* blackleg fungus; Dune<sup>Ⓛ</sup>; fusarium wilt of canola  
 Canola Breeders Western Australia Pty Ltd, 24  
 canola breeding, 39  
 capacity building *see* under industry capacity  
 carbon dioxide  
   impact of elevated levels of, ii, 17, 27, 49  
 Catalina<sup>Ⓛ</sup>, 32  
 catchment management of salinity and water quality, 44  
 Central Queensland Sustainable Farming Systems project, 45  
 cereal crop performance  
   impact of elevated levels of carbon dioxide on, ii  
 cereal foliar and root diseases  
   management options for, 12, 50  
 Cereal Functional Genomics Program, 17, 28, 35, 39  
 cereal rust  
   awareness-raising campaign, 65  
   implementation plan, 50  
   *see also* Australian Cereal Rust Control Program  
 Cereal Rust Communication Campaign, 65  
 Chair *see* under Board  
 challenges, iii, 15  
 chickpea breeding, 12, 28, 34, 40  
 chickpeas, 33, 39, 40  
   *see also* ascochyta blight; Flipper<sup>Ⓛ</sup>; Yorker<sup>Ⓛ</sup>  
 Clarity Project Management System, 69  
 climate change  
   adapting to, 49, 64  
*Climate* supplement of *Ground Cover*, 64  
 climate variability, 12, 41, 49, 64  
   in changing environment, 64, 76  
   *see also* Managing Climate Variability Program;  
   weather and climate variability  
 coarse grains, 32  
   *see also* pulse, oilseed and summer coarse grains

Code of Business Conduct and Ethical Behaviour, 84, 95  
 Coffey International, 24  
 collaboration, 23–24  
   international, 24  
   *see also* partnerships; relationship management  
 Comcover, 85  
 Comcover Awards for Excellence in Risk Management, 84  
 commercialisation, 70–74  
   outcomes, 70–71  
   strategy, 70  
*Commonwealth Authorities and Companies Act 1997* (CAC Act), 18, 68, 80, 82–83, 90  
*Commonwealth Procurement Guidelines*, 80  
 communication, 65  
 Communication and Customer Services *see* Output Group 4: Communication and Customer Services  
 Communication and Customer Services Program team, 92  
 companies in which GRDC has shares or membership, 73–74  
 competitiveness  
   improving through whole-of-industry approach, 26, 27  
 compliance  
   objective, 22  
   performance, 22  
 Computer Associates managers, 24  
 conduct of officers, 82  
 conferences, 59, 60, 66  
 conservation farming, 17  
 consultation arrangements, 81  
 Cooperative Research Centre (CRC) for Australian Weed Management, 44, 46  
 Cooperative Research Centre for National Plant Biosecurity (CRCNPB), 27, 52–53, 57, 58  
 Cooperative Venture for Capacity Building project 'On the fast track', 65  
 corporate communications  
   project list, 150–151  
 corporate governance, 84–85  
 corporate objectives  
   performance in meeting, 20–22  
 corporate performance, 20–22  
 Corporate Services, 68  
   staff, 93  
 Corporate Strategy and Program Support, 68  
   staff, 94  
 Council of Grain Grower Organisations Ltd, 24, 31  
 Council of Research & Development Corporation Chairs, 23  
 Crop and Food Research (New Zealand), 24  
 Crop Biofactories Initiative (CBI), 13, 28, 54, 58  
 crop protection  
   project list, 140–141  
   strategies and solutions, 12, 41  
   *see also* protecting the crop  
 crop variety yield and performance data, 12

cropping rotation, 12  
 cropping systems  
   integration of livestock into, ii, 17, 29, 42–43, 49  
   nutrient management in, 60  
   **see also** northern cropping systems  
 cross-industry cooperation, iii, 57  
 crown rot infection, 45  
 CSIRO  
   and Arista Cereal Technologies Pty Ltd, ii, 17, 18, 21, 24, 27, 53, 58, 71  
   and BHP Billiton Science Awards, 61  
   and Bioenergy Australia, 55  
   and biomass ethanol, 54, 58  
   and catchment management, 44  
   and cereal germplasm enhancement, 34  
   and HRZ Wheats Pty Ltd, 24  
   and integrated cropping and livestock practices, 42  
   and new industrial uses for grain crops, 13  
   and nutrient input, 42  
   and nutrient uptake, 43  
   and omega 3 fatty acids, 57  
   and precision agriculture, 27, 49  
   and South-east Australian Climate Initiative, 76  
   wheat breeding program, 32  
 CSIRO Entomology  
   and GLO2, 56, 71  
 CSIRO Plant Industry  
   and Summer School Student Program, 61, 66  
 CSIRO Sustainable Ecosystems  
   and soil water, 77  
 customer database  
   enhancement of, 59  
   **see also** segmented customer database  
 customer segmentation categories, 13, 59, 66  
   **see also** segmented customer database  
 customer service, 65  
 customers  
   alignment with, ii, 17

## d

DArT Pty Ltd, 72  
 delegations  
   international, 24  
 Department of Agriculture, Fisheries and Forestry, 60  
   portfolio goal, 6  
 Department of Agriculture and Food of Western Australia (DAFWA), 18, 32, 37, 39, 43  
 Department of Primary Industries (DPI) Victoria, 37  
 Department of Sustainability and the Environment (Victoria), 76  
 Derrimut<sup>h</sup>, 32  
*Disability Discrimination Act 1992*, 96  
 disability strategies, 96  
 disease management, 12, 45, 48  
   **see also** management of weeds, diseases and pests  
 Diversity Arrays Technology, 72  
*Driving Agronomy*, 60  
*Driving Innovation: The GRDC Five Year Research and Development Plan 2002–07*, 6, 10, 15, 20, 21, 25, 81, 85  
 drought, 20  
   agronomy after, 63  
   **see also** *Agronomy after the drought—a guide to decision making in 2007*

communication initiatives, 65  
 and grains production, iii, 14  
 and industry capacity, 50  
 and NVT program, 36  
 and wheat-breeding program, 32  
 drought response strategy, ii, 14, 20, 50  
 Dune<sup>h</sup>, ii, 16, 28, 33, 39, 71  
 durum wheat, 34  
   breeding programs, 32  
 dwarf bunt of wheat, 48

## e

ecologically sustainable development, 85  
 education and training for grains industry, 78  
 educational packages for secondary school teachers  
   and students, 13, 67  
 EGA Burke<sup>h</sup>, 32, 71  
 El Niño Southern Oscillation Sequence, 43  
   **see also** Southern Oscillation Index (SOI)  
 electronic document and records management  
   system, 69  
 Emergency Plant Pest Response Deed, 48  
 emergency plant pest threats  
   national surveillance plan, 29, 48, 49  
 enabling functions, 68–69  
   **see also** Corporate Services; Corporate Strategy  
   and Program Support  
 End Point Royalties (EPRs), 31, 32, 39, 71  
 energy costs  
   increasing, 14  
 enhanced management  
   project list, 151  
 Enterprise Grains Australia (EGA), 31, 39  
 environment policy, 75, 85  
 environmental objectives, 75–77, 85  
*Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), 85  
 environmentally sustainable Australia, 26, 27  
 environmentally sustainable farming practices, 41  
 environmentally sustainable grains industry, iii, 85  
 equal employment opportunity, 95  
 etiology moth  
   control of, ii, 17, 29, 45  
 events **see** significant events  
 Executive Management Team (EMT), 8, 84, 90  
 Export Grains Centre Ltd (EGC), 24  
 extension and grower programs  
   project list, 144

## f

faba bean breeding, 12, 40  
 faba beans, 34  
 farm machinery, 49  
 farm productivity report, 65  
 farm products and services **see** new farm products  
 and services  
 farming practices, 12  
   changes, 20, 41  
   environmentally sustainable, 12, 41, 75  
   **see also** integrated farm management practices;  
   new technologies and practices; on-farm  
   practices; Output Group 2: Practices  
 FarmLink group, 42  
 Feed Grain Partnership, 53  
 feed grain trading **see** trading feed grains

fertiliser application options, 20, 27, 42, 43–44  
*see also* nutrient input; nutrient uptake

field pea breeding, 12, 40

field pea lines, 30, 39

Finance, Risk and Audit Committee, 89

financial statements, 97–126

Flagship<sup>Ⓛ</sup>, 15, 16, 38

Flipper<sup>Ⓛ</sup>, 33, 71

Foundation for Arable Research (New Zealand), 45

fraud *see* risk management and fraud

free-air carbon experiment, ii, 17, 27, 49

freedom of information, 85

*Freedom of Information Act 1982* (FOI Act), 85

frontier technologies, 26, 28

fumigants, 56  
 residues, 53  
*see also* GLO2

fusarium wilt of canola, 46, 48

Future Directions for Agricultural Research and Technology—Implications for Australia symposium, 60

*Future Harvest: the 2007 Agriculture Statement*, 25

**g**

gene discovery  
 and new technologies, 35, 39  
 project list, 132–133

genetic improvement and regional adaptation of new grain varieties, 26, 28, 81

genetic modification technology, iii

genetically modified (GM) crops/cereals  
 delivery channels for, 12, 13, 28, 35–36, 54, 57, 58  
*see also* GM and biotechnology project

genotyping services to researchers and breeders, 35, 72

germplasm  
 international, 12, 40

germplasm enhancement, 12, 34, 39  
 project list, 133–135  
 research, 12

Gladius<sup>Ⓛ</sup>, 32, 71

GLO2, 56, 71

Global Crop Diversity Fund, 24

global grain markets, iii

glyphosate resistance, 47

GM and biotechnology project, 78

good health  
 promoting and maintaining, 26, 27

Grain and Graze program, ii, 23, 29, 32, 49, 75

grain crops  
 new industrial uses for, 13, 54, 55

grain food products *see* new grain food products

grain products *see* new grain products

Grain Protection Genes program, 28, 35, 39

grain quality testing  
 objective, 13

grain storage fumigant *see* GLO2

Grains Council of Australia (GCA), 48, 81  
 funding for, 82

grains industry  
 improvement in performance, 13, 20  
 production, iii, 14, 20  
*Grains Industry Profile*, 60

grains industry R&D priorities, 25, 26–30, 81

grains industry training and development, 59

Grains Research and Development Corporation (GRDC), i, 6, 10  
 achievements, 15  
 and Australian Government policies, 80  
 Board, 8  
 challenges, 15  
 corporate governance, 84–85  
 enabling functions, 68–69  
 Executive Management Team, 8  
 financial statements, 97–126  
 highlights  
 challenges, iii  
 five years at a glance, 1  
 successes, ii  
 mission, i  
 new strategic R&D plan *see Prosperity through Innovation*  
 objectives *see* objectives  
 organisation, 79–96  
 organisational outcome, 6  
 role, 6  
 Statement of Expectations, 11, 18, 80  
 Statement of Intent, 11, 18, 22, 80  
 structure, 7  
 values, i  
 vision, i

grains value driver analysis, 69

*GRDC Organisational Performance Research Survey*, 20

greenhouse gas emissions, 41

*Ground Cover*, 60, 65, 81  
*Climate* supplement, 64  
*Growers' Report* supplement, 65

Groupe Limagrain, ii, 17, 18, 21, 24, 27, 53, 58, 71

grower programs *see* extension and grower programs

Growers' Report, 81

*Growers' Report* supplement of *Ground Cover*, 65

Guardian<sup>Ⓛ</sup>, 32

*Guidelines on Funding of Consultation Costs by Primary Industry and Energy Portfolio Statutory Authorities*, 80, 81

**h**

*Harvest Radio*, 60

hazard analysis and critical control points HACCP principles, 53

Healthy Soils for Sustainable Farms Program, 75–76

herbicide resistance, 12, 29, 41, 44, 49, 50  
*see also* glyphosate resistance

hessian fly, 48

Hi Oleic peanuts, 33

high-amylose wheat, 13, 17, 18, 21, 24, 27, 53, 58, 71  
*see also* Arista Cereal Technologies Pty Ltd

highlights  
 challenges, iii  
 five years at a glance, 1  
 successes, ii

HowWet? (computer program), 77

HRZ Wheats Pty Ltd, 24

**i**

image analysis technology, 52

impact assessment, 69

implement control system  
for improved seed and fertiliser resource management placement accuracy, 27, 49  
indemnities and insurance premiums for officers, 85  
Independent Auditor's Report, 98–99  
independent audits, 83  
Independent Consultants Australia Network, 46  
industrial uses for grains, 13, 54, 55  
industry capacity  
building, 59, 60–62, 66  
*see also* building research capacity;  
Cooperative Venture for Capacity Building project 'On the fast track'  
drought and, 50  
participation of growers, advisers and researchers in capacity building program, 13, 66  
industry development awards, 60, 66  
industry levy rates, 81  
industry placement scholarship, 62  
industry representative, 81  
Industry Working Group on Natural Resource Management, 75  
information  
delivery channels, iii  
exchange of, 13, 60  
*see also* Output Group 4: Communication and Customer Services  
infrastructure, 78  
innovation and flexibility in contractual relationships development, 21  
innovative culture  
creating, 26, 29  
inputs  
making the most of, 49  
Output Group 1: Varieties, 31  
Output Group 2: Practices, 41  
Output Group 3: New Products, 51  
Output Group 4: Communication and Customer Services, 59  
insects and insect silks, 55  
integrated approach to variable rate pesticide application, 27  
integrated cropping and livestock practices, ii, 17, 29, 42–43  
integrated farm management practices, 12, 42–43  
integrated pest management (IPM), ii, 17, 26, 29, 45, 49, 53, 81  
Integrated Weed Management in Australian cropping systems manual, 65  
integrated weed management (IWM), 17, 29, 44, 49, 50  
workshops, 46  
integrity of Australian agricultural, food, fish and forestry products  
maintaining and improving confidence in, 26, 27  
intellectual property, 13, 21–22  
management, 74  
*see also* patents; plant breeder's rights; trademarks  
internal security, 96  
international alliances, 12, 24, 34, 40  
International Centre for Agricultural Research in Dry Areas (ICARDA) (Syria), 21, 24, 27, 34, 40  
international collaboration, 24  
international delegations, 24

international investment, 24  
International Maize and Wheat Improvement Centre (CIMMYT) (Mexico), 12, 21, 24, 28, 34, 40  
international symposium *see* Future Directions for Agricultural Research and Technology—Implications for Australia symposium  
invasive diseases and pests  
protecting Australia from, 26, 29  
invertebrate pests, 45  
*see also* national invertebrate pest initiative (NIPi)  
investment  
international, 24  
partnerships, 70, 71  
structures, 70  
investment portfolio analysis, 69  
Iraqi Ministry of Agriculture, 24

## j

Jandaroi<sup>d</sup>, 32, 71  
Joint Centre for Farm Health and Safety, 23  
judicial decisions and reviews by outside bodies, 83  
juncea  
canola-quality *see* Dune<sup>d</sup>

## k

karnal bunt, 46, 48  
key achievements, 16–17  
khapra beetle, 46, 48

## l

leaf rust, 45  
lentil breeding, 12, 28, 40  
lentils, 33, 34, 39  
*see also* Boomer<sup>d</sup>; etiella moth; Nipper<sup>d</sup>  
letter of transmittal, 2  
levy on graingrowers *see* industry levy rates  
line of business (LOB) strategies, 68  
links to market, 26, 27, 81  
livestock  
integration of into cropping systems, ii, 17, 29, 42–43, 49  
localised farming systems research, 29, 49  
LongReach Plant Breeders, 32  
lucerne *see* Pegasis<sup>d</sup>  
lucerne breeding program, 15  
lupin  
new varieties, 30  
lupin breeding, 39

## m

maize breeding, 39  
maize line  
new, 28  
malting barley *see* Flagship<sup>d</sup>  
management *see* enhanced management  
management of weeds, diseases and pests, 44–46, 50  
Managing Climate Variability Program (MCVP), 23, 64, 76  
Managing Director, 86, 88  
*see also* Report by Chair and Managing Director  
Managing Director's Area  
staff, 93  
market alliances, 26, 27, 81  
Meat and Livestock Australia, 62



mid-infrared (MIR) technologies *see* near-infrared (NIR) and mid-infrared (MIR) technologies to measure soil, plant and grain qualities

Minister, 80

ministerial directions, 80

ministerial priorities for rural R&D corporations and companies, 26

mirid populations

- control of, ii, 17, 29

mixed-farming projects, 75

molecular marker technologies, 72

molecular markers, 12, 21, 72

- see also* Australian Winter Cereal Molecular Marker Program (AWCMMP)

Molecular Plant Breeding Cooperative Research Centre (CRC), 12, 15, 29, 34, 40

mung bean

- new varieties, 30

mung bean breeding, 39

Murray–Darling Basin Commission, 76

**n**

National Action Plan for Salinity and Water Quality, 44

national alliance on cereal germplasm enhancement, 34, 39

national invertebrate pest initiative (NIPI), 50

National Land and Water Resources Audit, 60

National Panel, 8, 91

National Pulse Breeding Program *see* Pulse Breeding Australia (PBA)

National Research Priorities, 10–11, 25, 26–29, 80, 128

- see under* Australian Government research priorities

National Variety Trials (NVT) program, 12, 30, 36, 39, 40

National Wheat Breeders' Alliance, ii, 15, 16, 32, 39

National Youth Science Forum, 60–61, 66

Natural Heritage Trust, 64

natural resource management practices, 12, 43–44

near-infrared (NIR) and mid-infrared (MIR) technologies to measure soil, plant and grain qualities, 13, 52, 53, 57, 58

new crop varieties

- commercialisation of, 70–71

New Farm Products and Services, 51, 57

- project list, 144–145

new grain food products, 13, 53

New Grain Products, 51, 57

- project list, 145–146

New Products

- program team, 92
- staff, 94
- see also* Output Group 3: New Products

New South Wales Department of Primary Industries (NSWDPI), 15, 17, 32, 33, 37, 42, 45

new technologies and practices, 42

Nipper<sup>®</sup>, 33, 71

Norddeutsche Pflanzenzucht Hans-Georg Lembke KG (Germany), 24

northern cropping systems

- key profit drivers, 29, 49

Northern Region, 9

- and subsoil constraints, 27, 42, 49

Northern Regional Panel, 91

no-till and stubble retention farming practices, 14

no-till seeding, 44

novel protein biopolymers for use in high-performance fibres, 55

Nuffield scholarships, 66

Nugrain, 32

nutrient input, 42

nutrient management in cropping systems, 60

nutrient uptake, 12, 41, 43–44

**o**

oat breeding, 39

oats

- new varieties, 30

Objective Grain Quality Testing project, 27, 29, 52, 57, 71

- technologies, 52

objectives, i

- compliance, 22
- Output Group 1: Varieties, 12, 31
- Output Group 2: Practices, 12, 41
- Output Group 3: New Products, 13, 51
- Output Group 4: Communication and Customer Services, 13, 59
- product and service delivery, 20
- relationship management, 21

occupational health and safety (OH&S), 96

officers

- conduct of, 82

omega 3 fatty acids, 57

on-farm instrumentation

- scoping of potential uses and available technologies for, 29, 52

on-farm participatory programs, 41

on-farm practices

- results from stratified survey, 12, 50

on-farm risk management, 64

operating costs

- reduction of, iii

Operating Manual, 84, 85, 90, 91

organisation, 79–96

*Organisational Performance Research Survey*

- suspension of, 20, 50, 66

organisational performance surveys, 13

Output Group 1: Varieties, 12, 31–40

Output Group 2: Practices, 12, 41–50

Output Group 3: New Products, 13, 51–58

Output Group 4: Communication and Customer Services, 13, 59–67

outputs, 19–78

- Output Group 1: Varieties, 31–36
- Output Group 2: Practices, 42–46
- Output Group 3: New Products, 51–54
- Output Group 4: Communication and Customer Services, 59–62

overview, 5–18

- Output Group 1: Varieties, 31
- Output Group 2: Practices, 41
- Output Group 3: New Products, 51
- Output Group 4: Communication and Customer Services, 59

**p**

partnerships, 13, 23

- investment, 70, 71
- see also* business relationships; collaboration; relationship management

Pasture Soil Biology Program, 23  
 Pastures Australia, 23  
 patents, 21, 74  
 PB Seeds, 37  
 pea leaf weevil, 48  
 peanut breeding, 39  
 peanuts, 33  
   **see also** Ashton<sup>(b)</sup>; Sutherland<sup>(b)</sup>; Walter<sup>(b)</sup>  
 Pegasus<sup>(b)</sup>, 15, 17  
 performance  
   compliance, 22  
   corporate, 20–22  
   improvement in, 20  
   in meeting corporate objectives, 20–22  
   occupational health and safety, 96  
   Output Group 1: Varieties, 40  
   Output Group 2: Practices, 49  
   Output Group 3: New Products, 57–58  
   Output Group 4: Communication and Customer Services, 66–67  
   product and service delivery, 20  
   relationship management, 21–22  
   **see also under** grains industry  
 performance framework, 12  
 performance indicators  
   Output Group 1: Varieties, 12, 39–40  
   Output Group 2: Practices, 12  
   Output Group 3: New Products, 13  
   Output Group 4: Communication and Customer Services, 13  
 performance management, 95  
 pest management, 45, 46, 48, 53  
   through genetic manipulation, 12, 50  
   **see also** integrated pest management (IPM);  
   invertebrate pests; management of weeds,  
   diseases and pests  
 pesticide **see** variable rate pesticide application  
 Philom Bios (Australia) Pty Ltd, 24, 27, 29, 51, 57  
 Philom Bios Inc. (PBI) (Canada), 24, 51  
 phosphine resistance, 52, 53  
 pilot capacity audit, 66  
 planning and reporting approach, 10–13  
 plant breeder's rights, 21, 22, 74  
 Plant Health Australia (PHA), 46, 48  
 PLANTPLAN, 48  
 policies and procedure, 84  
 portfolio analysis **see** investment portfolio analysis  
 Portfolio Budget Statements, 22  
 portfolio monitoring, 68–69  
 post-harvest grain hygiene, 52–53, 57  
   strategy, 13, 58  
 Potential Yield Calculator, 76  
 Practices  
   program team, 92  
   staff, 94  
   **see also** Output Group 2: Practices  
 pre-breeding R&D, 32  
 precision agriculture (PA), 27, 49, 60  
 Premium Grains for Livestock Program, 13, 23, 53  
*Primary Industries and Energy Research and  
 Development Act 1989* (PIERD Act), 6, 10, 68, 80,  
 81, 88, 93  
   amendments to, 18  
*Primary Industries (Excise) Levies Act 1999*, 81

*Primary Industries Levies and Charges Collection Act  
 1991*, 81  
 Privacy Commissioner, 85  
 privacy policy and procedures, 85  
 product and service delivery, 20  
 product development  
   new and innovative, 26, 27, 81  
 production **see** under grains industry  
 professional development, 13  
 program teams, 92  
 project lists  
   GRDC, 132–151  
   joint R&D, 152–153  
 project management system, 69  
 proof-of-concept testing and development  
   genes, 12  
*Prosperity through Innovation*, 10, 15, 18, 68, 81  
 protecting the crop, 49  
 Protective Security Manual, 96  
*Public Sector Governance: Better Practice Guide  
 (ANAO)*, 11, 84  
*Public Sector Governance Better Practice (ANAO)*, 11  
 publications and products, 154  
 pulse, oilseed and summer coarse grains  
   project list, 136–137  
 Pulse Australia, 37  
 Pulse Breeding Australia (PBA), ii, 12, 15, 16, 28, 37,  
 39, 40  
 pulses, 33, 37  
   new varieties, 12

## q

QANTAS, 61  
 quality assurance, 84  
 Quality Management System, 84  
 Queensland Department of Natural Resources, 27, 49  
 Queensland Department of Primary Industries and  
 Fisheries (QDPI&F), 27, 37, 47

## r

R&D  
   nationally coordinated approach to, iii  
 R&D corporations (RDCs)  
   collaboration with, 23  
 RD&E Subcommittee of the Primary Industries  
 Standing Committee, 23  
 records management system **see** electronic  
   document and records management system  
 recovery after the drought workshop, 63  
 recruitment, training, retention and succession  
 management, 95–96  
 regional panels, 8, 91  
 regions, 9  
 relationship management  
   objective, 21  
   performance, 21–22  
   **see also** collaboration; partnerships  
 Remuneration Committee, 89  
 Report by Chair and Managing Director, 14–15  
 research capacity **see** building research capacity  
 research outputs  
   turning into relevant information, 13  
 research priorities **see** grains industry R&D priorities;  
 National Research Priorities



Review of Corporate Governance of Statutory Authorities and Office Holders (Uhrig Report), 18, 80

risk management, 12, 45–46, 48  
on-farm, 64

risk management and fraud, 84

root diseases *see* cereal foliar and root diseases

Rural Industries R&D Corporation (RIRDC), 62, 65

rural R&D priorities, 25  
revised, 18, 25, 128

Russian wheat aphid, 46, 48

rust management practices, 29, 50

**S**

safeguarding Australia, 26, 29

salinity, 12, 41, 44  
*see also* catchment management of salinity and water quality

sanctions  
under CAC Act, 83

scholarships, 62  
ARLF, 66  
Nuffield, 66  
training, 60, 66

School of Agricultural Science (University of Tasmania), 61

Sd+D Consulting, 54

sea surface temperatures (SST)  
and weather forecasts, 43

secondary schools  
program: support for science and agriculture, 13, 59, 60–61, 61–62  
*see also* educational packages for secondary school teachers and students

Seedmark, 15

segmented customer database, 13, 59

Selection Committee, 90

Service Charter, 85

SGS International Certification Services Pty Ltd, 84

sick leave, 96

significant events, 18

Signposts for Australian Agriculture project, 60

Singaporean Ministry of Defence, 24

Single Vision Grains Australia (SVGA), 78, 94  
Interim Board membership, 78  
staff, 94

Single Vision Ten-point Plan, 78

Soil Biology Initiative, 27, 49

soil biota, 12, 41

soil constraints, 12

soil inoculants  
incorporated joint venture, 13, 51, 57

soil moisture, 14, 20

soil water, 77

soils *see* agronomy and soils; Healthy Soils for Sustainable Farms Program

sorghum production, 14  
blueprint for doubling, 17, 29, 49

South Australian Research and Development Institute, 37, 45

South-east Australian Climate Initiative, 76

Southern Farming Systems, 45

Southern Oscillation Index (SOI), 76  
*see also* El Niño Southern Oscillation Sequence

Southern Region, 9  
and agronomic packages for new crop varieties, 49

Southern Regional Panel, 91  
consultant workshop, 65

sowing  
earlier, 20

soybeans *see* mirid populations

staff, 93–96  
breakdown by age and gender, 95  
code of conduct, 95  
location, 95  
performance management, 95  
recruitment, training, retention and succession management, 95–96  
sick leave, 96

stakeholder priorities  
GRDC achievements against, 27–30  
stakeholder report, 81  
stakeholders  
alignment with, ii, 17

Statement of Expectations (SOE), 11, 18, 80

Statement of Intent, 11, 18, 22, 80

statutory corporate planning and reporting documents, 22

stem rust, 45

storage and hygiene issues, 78

strategic business plan *see* *The Way Forward* (strategic business plan)

strategic R&D plan, 22  
*see also* *Prosperity through Innovation*

stripe rust, 29, 45, 50, 60

structure, 7

subprogram teams, 92

subsidiaries, 74

subsoil constraints (SSCs), 12, 27, 41, 42, 49

successes, ii

succession planning booklet, 62

Sugar R&D Corporation, 62

summer coarse grains *see* pulse, oilseed and summer coarse grains

summer crops  
new varieties, 12  
production, 14

Summer School Student Program, 61, 66

sustainability and resource management, 26, 27, 81

sustainable farming systems, 12, 41, 75

sustainable natural resource management, 26, 27

Sutherland<sup>(b)</sup>, 28, 33, 39, 71

**t**

technology and knowledge  
effective and targeted transfer and adoption of, 26, 29

trade and market access  
improving, 26, 27

trademarks, 21, 22, 74

trading feed grains  
rational basis for, 13, 57, 58

training and awareness of OH&S requirements, 96

training scholarships, 60, 66

travel awards, 60, 66

Triticarte Pty Ltd, 72

## U

Uhrig Report *see* Review of Corporate Governance of Statutory Authorities and Office Holders (Uhrig Report)  
undergraduate summer school, 61  
University of Adelaide, 15, 16, 32, 35, 37, 42, 44  
University of Melbourne, 35  
University of New South Wales, 43  
University of Tasmania (UT), 61, 62  
University of Western Australia, 24, 47, 62

## V

validation and adoption, 49  
validation and integration  
  project list, 142–143  
Value Added Wheat Cooperative Research Centre (CRC), 12, 15, 29, 34, 35, 40, 72  
value driver analysis (VDA) *see* grains value driver analysis  
variable rate pesticide application, 27, 49  
Varieties  
  program team, 92  
  staff, 94  
  *see also* Output Group 1: Varieties  
varieties  
  development of superior, iii, 12  
  *see also* agronomic packages for new crop varieties; new crop varieties  
variety evaluation  
  independent, 26, 30  
vernolic acid, 55  
virulence markers, 50

## W

Walter<sup>Ⓛ</sup>, 28, 33, 39, 71  
water quality *see* catchment management of salinity and water quality  
water storage capacity of soils, 77  
water use efficiency, 12, 41  
*The Way Forward* (strategic business plan), 15, 68, 85  
weather and climate variability, 43  
weather damage technology, 52  
weather forecasts, 43, 76  
website  
  podcasting, 65  
  redevelopment, 60

weed management, 12, 17, 45, 46, 50  
  *see also* integrated weed management (IWM); management of weeds, diseases and pests  
Western Australian Herbicide Resistance Initiative, 44, 47  
Western Region, 9  
  and agronomic packages for new crop varieties, 49  
Western Regional Panel, 91  
wheat  
  GM, 36  
  new varieties, 12, 31–32, 40  
  *see also* Binnu<sup>Ⓛ</sup>; bread wheat; Catalina<sup>Ⓛ</sup>; Derrimut<sup>Ⓛ</sup>; durum wheat; dwarf bunt of wheat; EGA Burke<sup>Ⓛ</sup>; Gladius<sup>Ⓛ</sup>; Guardian<sup>Ⓛ</sup>; high-amylose wheat; Jandaroi<sup>Ⓛ</sup>; Russian wheat aphid  
wheat breeding, 12, 31–32, 34, 39, 40  
  project list, 135–136  
  *see also* Value Added Wheat Cooperative Research Centre (CRC)  
wheat breeding program (DAFWA), 18  
wheat export marketing  
  uncertainties, 14  
wheat lines  
  importation of, 28, 40  
wheat marketing, 78  
wheat production  
  and subsoil constraints, 42  
wheat quality testing, 13  
wheat streak mosaic virus, 29, 45, 49  
whole-of-portfolio economic analyses, 20  
Whopper Cropper, 76, 77  
workplace facilities, 96  
workshops  
  information flow, network-building and improved understanding with agribusiness, 46  
  recovery after the drought, 63  
  Soil Biology Initiative, 27, 49  
  southern panel consultant workshop, 65  
  weed management, 46, 50

## Y

Yield Prophet, 64, 76, 77  
Yorker<sup>Ⓛ</sup>, 33, 71

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*Meeting stakeholder needs  
through cooperative innovation*

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