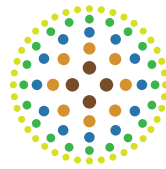




Australian Government  
Rural Industries Research and  
Development Corporation

# Annual Operational Plan

2016-2017



**RURAL INDUSTRIES**  
Research & Development Corporation





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Rural Industries Research and Development Corporation  
Annual Operational Plan 2016-17

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Note: RIRDC will relocate from Canberra to Wagga Wagga  
during 2016-17.



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# Profile

● ● ●  
***RIRDC aims to maximise the knowledge outcomes for industry and government from our R&D investments in new and emerging industries, established rural industries, and national rural issues***



## Purpose of this document

This Rural Industries Research and Development Corporation (RIRDC) Annual Operational Plan presents the Corporation's planned research, development and extension (RD&E) investments and corporate expenditure in 2016–17.

## Enabling legislation

RIRDC's enabling legislation is the *Primary Industries Research and Development Act 1989* (Commonwealth Government of Australia) (the PIRD Act).

## Responsible Ministers

**The Hon. Barnaby Joyce MP**

Deputy Prime Minister and Minister for Agriculture and Water Resources

**Senator the Hon. Anne Ruston**

Assistant Minister for Agriculture and Water Resources

## Outcome

Increased knowledge that fosters sustainable, productive and profitable new and existing rural industries and furthers understanding of national rural issues through research and development in government-industry partnership.

## RIRDC's Purpose and Goals

Purpose: Through research and development increase knowledge and understanding that fosters innovative, adaptive and valuable rural industries.

Goal 1: Discover emerging opportunities and issues impacting rural industries

Goal 2: Deliver research that achieves value for rural industries and for Australia

Goal 3: Encourage diversity and advance the potential of people in rural industries and their communities

## Key Performance Indicators

RIRDC evaluates performance against the following six key performance indicators (KPIs):

1. Potential new Australian primary industries receive suitable RD&E investment.
2. All RD&E programs have plans that are meeting their objectives.
3. RD&E programs are contributing to the delivery of innovative, adaptive and valuable primary industries and rural communities through an impact assessment or evaluation process.
4. Identification, prioritisation and implementation of R&D strategies and actions for cross-sectoral issues are facilitated.
5. Extension and adoption of R&D investments are facilitated.
6. Leadership and capability of rural industries is enhanced.

KPI	1	2	3	4	5	6
<b>Goal 1</b>						
New and Emerging Animal Industries (including levied industries: Buffalo; Deer; Goat Fibre; and Kangaroo)	YES	YES	YES		YES	
New and Emerging Plant Industries	YES	YES	YES		YES	
National Rural Issues		YES		YES	YES	
<b>Goal 2</b>						
Bioenergy, Bio-products and Energy		YES		YES	YES	
Chicken Meat		YES			YES	YES
Export Fodder Crops		YES			YES	
Ginger		YES	YES		YES	
Honey Bee and Pollination		YES			YES	
Horse (including Hendra virus)		YES			YES	
Primary Industry Health and Safety Partnership		YES	YES	YES	YES	
Pasture Seeds		YES			YES	
Rice		YES			YES	YES
Tea Tree Oil		YES			YES	
<b>Goal 3</b>						
Investing in People (includes the Rural Women's Award and Horizon Scholarship)		YES			YES	YES
Extension and Adoption (includes <a href="http://www.farmdiversity.com.au">www.farmdiversity.com.au</a> and extension portals)		YES			YES	



# RIRDC's Board

The RIRDC Board is accountable to the Parliament of Australia through the Minister for Agriculture and Water Resources.

## **The Board:**

- Sets strategic direction and establishes policies for the Corporation.
- Oversees operational and functional performance against budget and other key performance indicators on behalf of stakeholders.
- Remuneration to directors is estimated at \$706,000 for 2016-17.

## **RIRDC Board Directors as of 30 June 2016 were:**

### **Chairperson**

Professor Daniela Stehlik

### **Deputy Chair**

Mr Kevin Goss

### **Managing Director:**

Mr John Harvey

### **Non-Executive Directors:**

Dr Tony Hamilton

Dr Jan Mahoney

Dr William Ryan

Ms Heather Stacy AM

Dr Keith Steele

Dr Len Stephens



# Preface

This 2016-17 Annual Operational Plan sets out the Rural Industries Research and Development Corporation's (RIRDC's) research and investment plan for the first year of our newly implemented 2016–2021 R&D Plan.

The RIRDC 2016–2021 R&D Plan has three goals that provide direction for the RD&E that RIRDC will administer in 2016–2017, as outlined in this Annual Operational Plan. Those three goals are:

1. **Discover** emerging opportunities and issues impacting rural industries.
2. **Deliver** research that achieves value for rural industries and for Australia.
3. **Encourage** diversity and advance the potential of people in rural industries and their communities.

Our first goal is to discover new industries, technologies, opportunities and issues for Australian rural industries. This goal extends to RIRDC identifying new and emerging plant and animal industries, as well as those issues that could positively or negatively impact the success of our rural industries.

Our second goal is to continue to deliver applied RD&E that achieves value for rural industries and for Australia.

Our third goal is to encourage diversity and advance rural industries and their communities because skilled, connected and resilient people are what underpin successful rural industries.

Central to the 2016–2021 R&D Plan is RIRDC's vision for Australian rural industries to be innovative, adaptive and valuable. The R&D investments we have made in recent years and will make in 2016–17, as outlined in this Annual Operational Plan, place us in a strong position to accomplish this vision.

The foundation of RIRDC's investment decision making process is the life-cycle approach, which has been successful in focusing industry research investments that are appropriate to an industry's development phase and their unique attributes.

RIRDC's 2012–2017 Corporate Plan introduced the life-cycle approach to R&D investment and the 2016–2021 R&D Plan will see the extension of the life-cycle approach to support decision making in relation to national interest RD&E investments and collaborative research efforts. This will create a seamless integration of understanding the drivers for success and in supporting the identification and development of new rural industries.

RIRDC has worked closely with its portfolio industries to ensure the RD&E projects managed by the Corporation meet their specific needs through being relevant, practical and delivered in a timely manner.

Over the course of the 2016–17 year RIRDC will look to broker new partnerships and relationships with domestic and international private and public sector organisations — this is another focus of the 2016–2021 R&D Plan that is being put into action. These partnerships will aim to leverage industry and government investment to develop innovations that can benefit all Australian rural industries.

The year ahead is an important one for RIRDC and at an operational level it will be one of substantial change.



In early 2016 the decision was made by the RIRDC Board to relocate RIRDC's operations from Canberra to Wagga Wagga. This move demonstrates our commitment to regional Australia and presents a new and exciting opportunity for our organisation and the rural industries we support. It is anticipated that the relocation from Canberra to Wagga Wagga will have been completed by mid-2017.

However, the relocation will bring changes and challenges to the way we operate and will inevitably mean some adjustments to the structure of the organisation. Despite these changes, we do not anticipate any substantial impact on the level of service provided to the industries and stakeholders we work for.

The ongoing success of RIRDC will depend on both how well — particularly over the next 12 months - the Corporation manages the organisational changes that lie ahead and the investment principles and framework under which we will operate. This Annual Operational Plan will play an important role throughout this change process because it very clearly sets out the activities and results we hope to achieve in the first year of the broader five-year R&D Plan.

Our purpose is to invest in RD&E that is adopted and assists rural industries to be innovative, adaptive and valuable. This is what we will continue to focus on delivering in 2016–17.

**John Harvey**

Managing Director

Rural Industries R&D Corporation

# RIRDC's R&D Plan 2016-2021

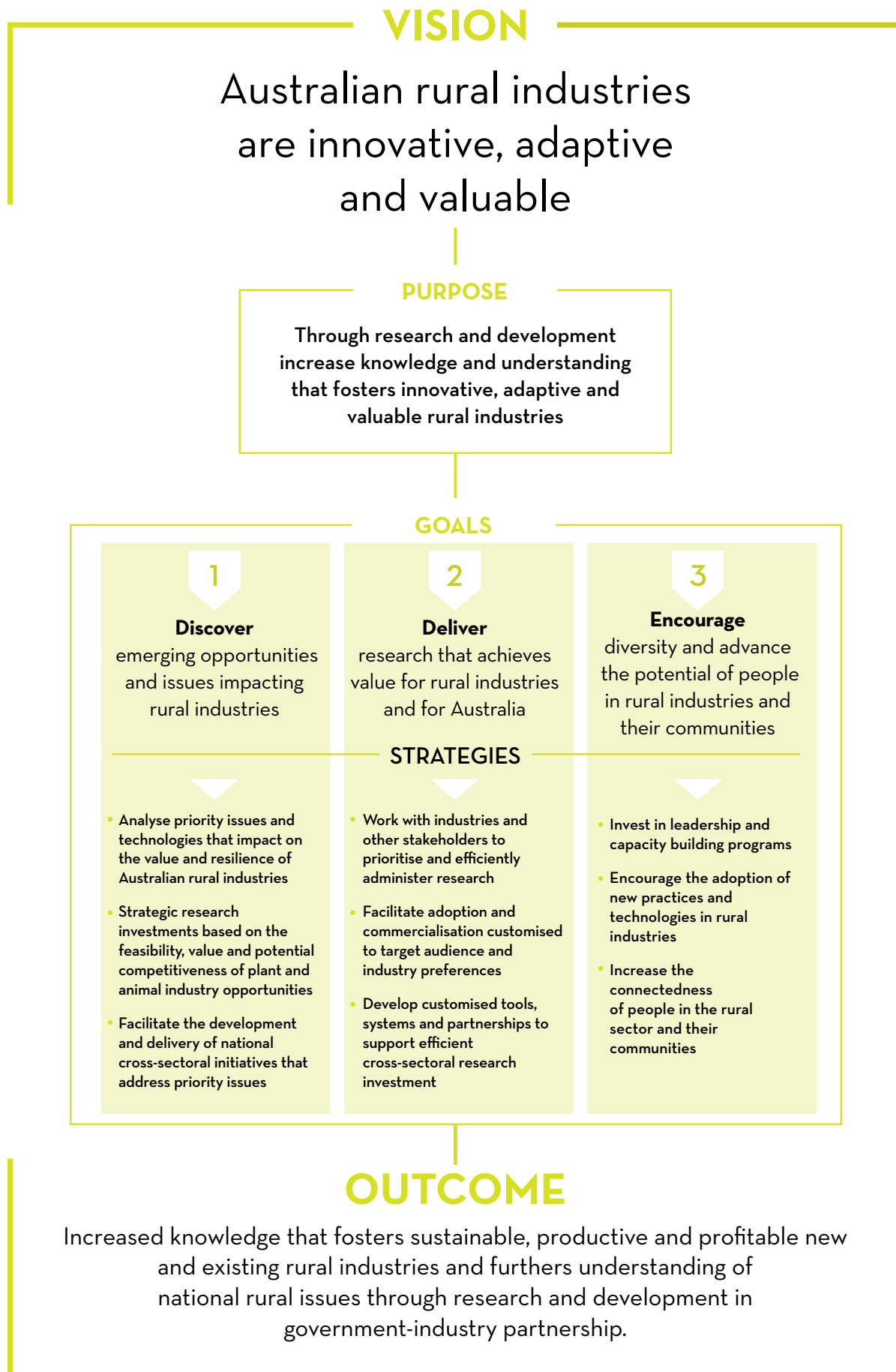


Figure 1. RIRDC's 2016-2021 R&D Plan - a summary

# RIRDC's Investment Portfolio

RIRDC invests its RD&E funds through a number of 'New', 'Emerging' and 'Established' industry programs, along with a number of national and cross-sectoral programs and initiatives. RIRDC's RD&E programs in place at the commencement of this Plan are listed below. Some program areas supported by RIRDC may change over the life of the Plan due to:

- New program areas being established in response to:
  - New national issues
  - New Australian Government priorities
  - The identification of new industries
  - New collaborations
- Industries voting for an RD&E or marketing levy:
  - Where RIRDC is selected as the Program Manager
  - Industries departing RIRDC to have their RD&E or marketing managed by another organisation
- Existing programs conclude (eg special initiatives with specific Australian Government funding for a set time period) or become less attractive for investment.

Under the National Primary Industries RD&E Framework (NPIRD&EF), RIRDC leads the implementation of the new and emerging industries RD&E strategy.

## RIRDC's RD&E programs as at 1 July 2016

Goal 1	Goal 2	Goal 3
<ul style="list-style-type: none"> <li>• New and Emerging Animal Industries (including levied industries: Buffalo; Deer; Goat Fibre; and Kangaroo)</li> <li>• New and Emerging Plant Industries</li> <li>• National Rural Issues</li> </ul>	<ul style="list-style-type: none"> <li>• Bioenergy and Bio-products</li> <li>• Chicken Meat</li> <li>• Export Fodder Crops</li> <li>• Ginger</li> <li>• Honey Bee and Pollination</li> <li>• Horse (includes Hendra virus)</li> <li>• Pasture Seeds</li> <li>• Rice</li> <li>• Tea Tree Oil</li> <li>• Primary Industries Health and Safety Partnership</li> </ul>	<ul style="list-style-type: none"> <li>• Investing in People (includes the Rural Women's Award and Horizon Scholarship)</li> <li>• Extension and Adoption (includes <a href="http://www.farmdiversity.com.au">www.farmdiversity.com.au</a> and extension portals)</li> </ul>

## Investment Approach

This AOP, guided by RIRDC's R&D Plan, is implemented through an investment approach that facilitates the most efficient and effective application of RIRDC's resources to deliver the strategies. There are two overarching directions that guide this approach:

- Applying the life-cycle approach to target investment
- Developing RD&E partnerships for rural industries

## Balanced Portfolio

RIRDC invests its RD&E funds through a number of new, emerging and established industry programs, along with a number of national and cross-sectoral programs and initiatives.

RIRDC allocates its expenditure using a range of measures that ensure a balanced, financially responsible approach to its investment of both industry and core funds.

RIRDC's investments integrate the triple bottom line objectives of economic, environmental and social responsibility. The majority of investment is aligned with short- to medium-term adaptive research outcomes and investment returns with the remainder contributing to long-term strategic research objectives.

RIRDC's project management system enables the portfolio of investments to be viewed through various perspectives including:

- Government research priorities
- Program objectives
- Project length
- Levels of risk, return and leverage

RIRDC's Industry Advisory Panels assist in identifying and advising on specific RD&E priorities to implement the RD&E Plans, but ultimately investment is determined by industry, with support from the Australian Government where appropriate, and RIRDC's own evaluation of the RD&E need against investment priorities.

RIRDC's Industry Advisory Panels will provide advice as to the appropriate balance of investment between industry-specific RD&E priorities and cross-sectoral investment.

Where RIRDC is the appropriate lead agency, the Corporation will manage and develop collaborative investment programs with partners. Areas which are well suited to collaborations include climate change issues, natural resource management, health, safety and welfare, capacity building and leadership.



# Budget

## RIRDC's operating budget for 2016-17 (PBS)

	2016-17 Budget (\$ Million)	2015-16 Budget (\$ Million)
<b>Income</b>		
Base Appropriation	9.2	8.6
Industry Levies (levy collection costs \$88,000)	4.1	4.1
Commonwealth matching contribution	4.1	3.6
External contributions	1.6	1.5
Other	2.1	1.2
<b>Total Income</b>	<b>21.1</b>	<b>19.0</b>
Total Expenses	21.1	19.0
<b>Operating Result</b>	<b>0.0</b>	<b>0.0</b>

# Allocation of RIRDC's 2016-17 RD&E expenditure to the Australian Government research priorities

Research and Development Expenditure Estimates 2016-17 across the Strategic Science and Research Priorities (Refer to Appendix B at page 38)

Strategic Research Priorities	Goal 1 (\$'000)	Goal 2 (\$'000)	Goal 3 (\$'000)	Total (\$'000)	Total (%)
<b>1. Food</b>					
1.1 Knowledge of global and domestic demand, supply chains and the identification of country specific preferences for food Australia can produce.	0	851	0	851	5.42%
1.2 Knowledge of the social, economic and other barriers to achieving access to healthy Australian foods.	814	0	0	814	5.18%
1.3 Enhanced food production	2,072	8,974	0	11,046	70.36%
<b>2. Soil and Water</b>					
2.1 New and integrated national observing systems, technologies and modelling frameworks across the soil-atmosphere-water-marine systems.	0	0	0	0	0.00%
2.2 Better understanding of sustainable limits for productive use of soil, freshwater, river flows and water rights, terrestrial and marine ecosystems.	0	0	0	0	0.00%
2.3 Minimising damage to, and developing solutions for restoration and remediation of, soil, fresh and potable water, urban catchments and marine systems.	0	0	0	0	0.00%
<b>3. Transport</b>					
3.1 Low emission fuels and technologies for domestic and global markets.	0	0	0	0	0.00%
3.2 Improved logistics, modelling and regulation: urban design, autonomous vehicles, electrified transport, sensor technologies, real time data and spatial analysis.	0	0	0	0	0.00%
3.3 Effective pricing, operation, and resource allocation.	0	0	0	0	0.00%
<b>4. Cybersecurity</b>					

Strategic Research Priorities	Goal 1 (\$'000)	Goal 2 (\$'000)	Goal 3 (\$'000)	Total (\$'000)	Total (%)
4.1 Highly-secure and resilient communications and data acquisition, storage, retention and analysis for government, defence, business, transport systems, emergency and health services.	0	0	0	0	0.00%
4.2 Secure, trustworthy and fault-tolerant technologies for software applications, mobile devices, cloud computing and critical infrastructure.	0	0	0	0	0.00%
4.3 New technologies and approaches to support the nation's cybersecurity: discovery and understanding of vulnerabilities, threats and their impacts, enabling improved risk-based decision making, resilience and effective responses to cyber intrusions and attacks.	0	0	0	0	0.00%
4.4 Understanding the scale of the cyber security challenge for Australia, including the social factors informing individual, organisational, and national attitudes towards cyber security.	0	0	0	0	0.00%
<b>5. Energy</b>					
5.1 Low emission energy production from fossil fuels and other sources.	0	0	0	0	0.00%
5.2 New clean energy sources and storage technologies that are efficient, cost-effective and reliable.	0	0	0	0	0.00%
5.3 Australian electricity grids that can readily integrate and more efficiently transmit energy from all sources including low- and zero-carbon sources.	0	0	0	0	0.00%
<b>6. Resources</b>					
6.1 A fundamental understanding of the physical state of the Australian crust, its resource endowment and recovery.	0	0	0	0	0.00%
6.2 Knowledge of environmental issues associated with resource extraction.	0	0	0	0	0.00%
6.3 Lowering the risk to sedimentary basins and marine environments due to resource extraction.	0	0	0	0	0.00%
6.4 Technologies to optimise yield through effective and efficient resource extraction, processing and waste management.	0	0	0	0	0.00%
<b>7. Advanced manufacturing</b>					
7.1 Knowledge of Australia's comparative advantages, constraints and capacity to meet current and emerging global and domestic demand.	0	212	0	212	1.35%
7.2 Cross-cutting technologies that will de-risk, scale-up, and add value to Australian manufactured products.	0	15	0	15	0.10%

<b>Strategic Research Priorities</b>	<b>Goal 1 (\$'000)</b>	<b>Goal 2 (\$'000)</b>	<b>Goal 3 (\$'000)</b>	<b>Total (\$'000)</b>	<b>Total (%)</b>
7.3 Specialised, high value-add areas such as high-performance materials, composites, alloys and polymers.	0	0	0	0	0.00%
<b>8. Environmental Change</b>					
8.1 Improved accuracy and precision in predicting and measuring the impact of environmental changes caused by climate and local factors.	0	0	0	0	0.00%
8.2 Resilient urban, rural and regional infrastructure.	0	0	0	0	0.00%
8.3 Options for responding and adapting to the impacts of environmental change on biological systems, urban and rural communities and industry.	0	1,575	912	2,487	15.84%
<b>9. Health</b>					
9.1 Better models of health care and services that improve outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide greater value for a given expenditure.	0	0	275	275	1.75%
9.2 Improved prediction, identification, tracking, prevention and management of emerging local and regional health threats.	0	0	0	0	0.00%
9.3 Better health outcomes for Indigenous people, with strategies for both urban and regional communities.	0	0	0	0	0.00%
9.4 Effective technologies for individuals to manage their own health care, for example, using mobile apps, remote monitoring and online access to therapies.	0	0	0	0	0.00%
<b>Total</b>	<b>2,886</b>	<b>11,627</b>	<b>1,187</b>	<b>15,700</b>	<b>100.00%</b>



**Research and Development Expenditure Estimates 2016-17  
across the Rural Research Priorities (Refer to Appendix C at page 46)**

<b>Rural RD&amp;E Priorities</b>	<b>Goal 1 (\$'000)</b>	<b>Goal 2 (\$'000)</b>	<b>Goal 3 (\$'000)</b>	<b>Total (\$'000)</b>	<b>Total (%)</b>
1. Advanced Technology	918	2,290	402	3,610	22.99
2. Biosecurity	34	862	0	896	5.71
3. Soil, water and managing natural resources	0	285	50	335	2.13
4. Adoption of RD&E	1,934	8,190	735	10,859	69.17
<b>Total</b>	<b>2,886</b>	<b>11,627</b>	<b>1,187</b>	<b>15,700</b>	<b>100.00%</b>



# Goal 1 .

● ● ●  
***Discover  
emerging  
opportunities  
and issues  
impacting  
rural  
industries***

Adaptive and valuable rural industries are characterised by their ability to innovatively identify and respond to new opportunities while mitigating any emerging risks.

It is particularly important for nascent industries or product developers to have a clear understanding of their pathway to market or commercialisation to provide the best chance of success.

Industry participants need access to knowledge that supports better decision-making in relation to opportunities and risks. While supply chain participants actively and continually assess their environment and pursue opportunities that optimise their profitability, productivity and sustainability, the picture is often incomplete. Some areas requiring knowledge transfer will not be addressed effectively generally because the issue is only just emerging, making it difficult to scope, or the issue is too large or cross-sectoral, requiring a wider buy-in of stakeholders that cannot be facilitated by one industry.

RIRDC's role is to complement individual industry RD&E investment by supporting research into national rural issues that are cross-sectoral and where value to the rural industry sector, and to Australia, can be demonstrated. RIRDC will assess these issues using the life-cycle analysis to ensure the scale and scope of an issue, and the urgency of dealing with it, is thoroughly determined.

The bulk of RD&E carried out in this goal will be within the 'New' phase of the life-cycle, with the potential for some RD&E to cross into the 'Emerging' phase.

## ● Goal 1. Strategies

Analyse priority issues and technologies that impact on the value and resilience of Australian rural industries

Invest in strategic RD&E based on the feasibility, value and potential competitiveness of plant and animal industry opportunities

Facilitate the development RD&E of national cross-sectoral initiatives that address priority issues

## GOAL 1 INVESTMENT BUDGET FOR 2016-17: \$2,885,750

### Program: NATIONAL RURAL ISSUES

Deliverable	2016-17 Budget	Funding Sources
To inform and improve policy debate by government and industry on national and global issues relevant to agricultural and rural policy in Australia by targeting current and emerging rural issues, and produce quality work that will inform policy in the long term.	\$612,000	Core RIRDC funding, industry levy, voluntary contributions

### Research Projects

Project Number	Project Title
<b>New</b>	
Contracting in 2016-17	Policy and issues papers developed for key themes identified through foresighting and/or consultation
Contracting in 2016-17	Analysis of key policy issues influencing the rural industries operating environment
<b>Continuing</b>	
Contracting in 2015-16	Detecting opportunities and challenges for Australian rural industries
<b>Due for completion 2016-17</b>	
Contracting in 2015-16	Cross-Industry Innovation Scan
Contracting in 2015-16	Various fact sheets on issues identified in Rural Industries Futures report
PRJ-010396	Local to Global: farmer co-operation for high value export markets
PRJ-010406	Agvet collaborative forum

### CROSS SECTORAL INITIATIVES

Deliverable	2016-17 Budget	Funding Sources
Cross sectoral initiatives not yet identified.	\$202,000	Core funding

## RESEARCH PROGRAM: NEW AND EMERGING ANIMAL INDUSTRIES

Deliverable	2016-17 Budget	Funding Sources
To conduct RD&E for new and emerging animal industries that contributes to the profitability, sustainability and productivity of regional Australia.	\$641,700 \$55,000 (buffalo) \$93,345 (kangaroo) \$94,525 (deer) \$75,880 (goat fibre) \$66,300 (alpaca)	Core RIRDC funding, industry levy, voluntary contributions

### Research Projects

Project Number	Project Title
<b>New</b>	
PRJ-010413	Commencing implementation of a genetic eval. system for livestock working dogs
<b>Continuing</b>	
PRJ-009685	Optimising stock movement in processing plants and lairage – Stage 1 Dogs
PRJ-009985	Studies on gastrointestinal nematodes of alpacas
PRJ-009989	Feasibility of a sustainable harvest of Agile wallabies in NT
PRJ-010045	Improved tenderness of alpaca carcasses using combined processing techniques
PRJ-009388	Eliminate factors inhibiting redclaw farming from reaching its full potential
PRJ-009427	Development of innovative tools for the detection and control of CAE virus
PRJ-010227	Providing new and emerging animal industries with up to date market assessments
PRJ-010243	Backoff! Invisible fences to protect working dogs at risk from poison baiting
PRJ-010284	Boosting the productivity of sea urchin aquaculture using a dietary intervention
PRJ-010407	A 10-year R&D Plan for growing the Australian camel milk industry
PRJ-010410	Solving key industry bottlenecks for sea urchin roe enhancement
PRJ-010412	Parasitism and control strategies in domesticated buffalo populations
PRJ-010453	Possible chinks in the crocodile armour: defining skin microbiota
<b>Due for completion 2016-17</b>	
PRJ-009993	Communications for the dairy and fibre goat animal welfare standards/guidelines
PRJ-009994	Development of game birds welfare standards and guidelines
PRJ-010047	Cross industry biosecurity and emergency animal disease awareness
PRJ-009441	Developing appropriate stunning methods for halal slaughter of water buffalo
PRJ-009469	Method of castration in alpacas

## RESEARCH PROGRAM: NEW AND EMERGING PLANT INDUSTRIES

Deliverable	2016-17 Budget	Funding Sources
To facilitate the development of new rural industries based on plants or plant products that have commercial potential for Australia	\$1,045,000	RIRDC core funding and industry voluntary contributions

### Research Projects

Project Number	Project Title
<b>Continuing</b>	
PRJ-009959	Overcoming barriers to development of the Australian jujube industry
PRJ-010333	Minor chemical consultant for small and non-levied industries
PRJ-009614	Agronomic and extraction parameters for Centipeda (Part 2)
PRJ-007807	A method to screen new crop prospects
PRJ-009588	Monitoring quality and bioactivity of Kakadu plum in the Northern Territory
PRJ-010343	Emerging business models for the Kakadu plum industry
PRJ-010102	Australian native foods information and extension project
PRJ-010103	Australian native foods Kakadu plum project
PRJ-010057	Quinoa as a new crop in Australia – stage 2
PRJ-010006	Australian Pastures Genebank (14/15 – 18/19) [See PRJ-09988]
PRJ-009832	Pests and diseases of truffles and their tree hosts in Australia
PRJ-009407	New coffee varieties for the Australian subtropics
PRJ-007678	Improving the capacity of primary industries to withstand cyclonic winds
PRJ-010393	Development of a biosecurity plan for the Australian coffee industry
PRJ-010399	Research and development extension for the truffle industry
<b>Due for completion 2016-17</b>	
PRJ-010132	The Australian Truffle Growers Guide
PRJ-010344	Cocoa pod splitter
PRJ-009961	Standards for seaweed production in Australia
PRJ-007666	Hazelnuts in Australia: Opportunities for long-term development
PRJ-009045	Capacity building and communications for the wildflower industry stage 2
PRJ-009978	Advanced biotechnology systems for propagation and breeding of Australian plants

# Goal 2 .



***Deliver  
research  
that achieves  
value for rural  
industries and  
for Australia***



RIRDC manages the RD&E for a diverse portfolio of animal and plant industries as they progress along the life-cycle from new, through emerging, and into established industries. Success is determined by an industry's capacity to take advantage of opportunities and respond to challenges, regardless of their developmental stage.

Just as the industries are diverse, so are their needs. RD&E underpins the success of rural industries by providing solutions and services in a diverse range of areas including breeding and genetics, agronomy, biosecurity, technology and market development.

RIRDC supports industries to identify and invest in their priority RD&E needs and ensures the research results in practical knowledge and innovations that can be adopted. To achieve this, RIRDC must consider and manage a range of factors including understanding the circumstances and priorities that will drive industry development, identifying a role for RD&E in delivering the desired outcomes and implementing the best RD&E solutions. RIRDC must also consider the capability and availability of skilled researchers who understand the purpose and intended use of the RD&E outcomes, ensuring outputs are relevant, practical and adopted by the target users.

This results in a highly targeted, customised approach to RD&E for each industry and cross-sectoral theme that best reflects the needs and circumstances.

RIRDC's investments in this goal are predominantly focused in the 'Emerging' and Established' phases of the industry or issue life-cycle.

## ● Goal 2 Strategies

Work with industries and other stakeholders to prioritise and efficiently administer research

Facilitate adoption and commercialisation that is customised to target audience and industry preferences

Develop customised tools, systems and partnerships to support efficient cross-sectoral RD&E investment

## GOAL 2 INVESTMENT BUDGET FOR 2016-17: \$11,627,714

### Research Program: BIOENERGY AND BIOPRODUCTS

Deliverable	2015-16 Budget	Funding Sources
Bring awareness to the primary industries sector about the opportunities to engage in the bioenergy supply chain as a feedstock producer.	\$50,000	Core RIRDC funding
To catalyse investment in the renewable energy sector through the provision of detailed information about biomass resources across Australia and to deliver a national database of biomass resources for the potential production of bioenergy across Australia.	\$801,000 (ABBA project)	

### Research Projects

Project Number	Project Title
<b>Continuing</b>	
Contracting in 2016-17	Bioenergy communication and extension
PRJ-010372	SA component of Australian Biomass for Bioenergy Assessment
PRJ-010373	VIC component of Australian Biomass for Bioenergy Assessment
PRJ-010374	WA component of Australian Biomass for Bioenergy Assessment
PRJ-010375	QLD component of Australian Biomass for Bioenergy Assessment
PRJ-010364	NSW component of Australian Biomass for Bioenergy Assessment
PRJ-010372	SA component of Australian Biomass for Bioenergy Assessment
PRJ-010376	USC component of Australian Biomass for Bioenergy Assessment
PRJ-010377	QUT component of Australian Biomass for Bioenergy Assessment
PRJ-010380	Julie Bird Project Management Australian Biomass for Bioenergy Assessment

## Research Program: CHICKEN MEAT

Deliverable	2016–17 Budget	Funding Source
Stimulate and promote RD&E that will deliver a productive and sustainable Australian chicken meat industry that provides quality wholesome food to the nation.	\$2,953,960	Industry levy

## Research Projects

Project Number	Project Title
<b>New</b>	
PRJ-010220	Critical amino acids to improve gut health of chickens fed reduced protein diets
PRJ-010208	Moving from concept to control: use of phages for Campylobacter reduction
PRJ-010276	Clouds and Pasteurella multocida
PRJ-010253	Novel, quantifiable diagnostic for Campylobacter detection on poultry carcasses.
PRJ-010237	A novel way to suppress growth of Campylobacter in chickens prior to processing
PRJ-010321	Development of a Myco-pesticide for control of lesser mealworm in broiler houses
PRJ-010264	A detect-alert-deter system for enhanced AI biosecurity and risk assessment
<b>Continuing</b>	
PRJ-008715	Surveillance and pathotyping of Australian IBDV
PRJ-009970	Contribution to national welfare RD&E capacity building
PRJ-010263	Nuffield Australia Farming Scholarships – Ben Edser
PRJ-008722	Dietary manipulation of nutrient-specific appetite in broiler chickens
PRJ-010145	Contribution to Waste to revenue: novel fertilisers and feeds
PRJ-009784	Improved broiler phosphorus utilisation and transporter gene expression
PRJ-009946	Reducing stable fly emergence in soils amended with litter
PRJ-009841	Rapid detection & quantitation of Campylobacter jejuni/coli in processing
PRJ-007382	Robert A Swick, UNE Poultry Research Hub
PRJ-010184	Resilient plants for free range chicken meat farms
PRJ-010216	Formulating broiler diets based on protein and starch digestive dynamics
PRJ-010245	Effects of an in-shed sprinkler cooling system multiple parameters
<b>Due for completion 2016–17</b>	
PRJ-008714	Loop-mediated isothermal amplification tests to detect poultry pathogens
PRJ-005882	Feed Grains R&D Partnership (started in 2010/11)
PRJ-010332	Analysis of innovative business models for improved chicken litter management
PRJ-009075	Post-hatch management for improved broiler locomotion
PRJ-009969	Nuffield Australia farming scholarships - James Mifsud
PRJ-009570	Increasing renewable energy generation through embedded hybrid energy precincts
PRJ-010151	Vaccination practices and factors that contribute to ILT outbreaks in VIC/NSW
PRJ-010326	Review and efficacy of antimicrobial nanomaterials for chicken meat processing
PRJ-009099	Whole grain feeding for chicken meat production
PRJ-009910	Addressing odour abatement and assessment knowledge gaps using PTR-TOFMS
PRJ-010446	Coordinating the development of biosecurity DVDs for the Australian chicken meat industry
PRJ-010314	Target 2020 litter supply and management

## RESEARCH PROGRAM: CLIMATE CHANGE RESEARCH STRATEGY FOR PRIMARY INDUSTRIES

Deliverable	2016-17 Budget	Funding Sources
To host the secretariat of the Climate Change Research Strategy for Primary Industries and promote collaboration on climate research.	\$0	Partner contributions

## RESEARCH PROGRAM: EXPORT FODDER CROPS

Deliverable	2016-17 Budget	Funding Sources
To stimulate and promote those RD&E efforts that will produce quality fodder products and secure sustainability and profitability for all sectors of the Australian fodder industry value chain in export markets.	\$680,450	RIRDC core funding and industry voluntary contributions

### Research Projects

Project Number	Project Title
<b>Due for completion 2016-17</b>	
PRJ-007615	Improved oat varieties for hay production: national program IV
PRJ-009627	Vetch varieties for grain and hay production for Australian farmers

## RESEARCH PROGRAM: GINGER

Deliverable	2016-17 Budget	Funding Sources
To provide RD&E to support a sustainable, growing and prosperous ginger industry supplying product of the highest quality that is strongly sought-after by discerning consumers in Australia and around the world.	\$230,000	Industry levy

### Research Projects

Project Number	Project Title
<b>Continuing</b>	
PRJ-008308	Improved tissue culture production of ginger clean planting material
<b>Due for completion 2016-17</b>	
PRJ-008532	Improving soil health to suppress soilborne diseases of ginger
PRJ-009626	Induced Pythium and Fusarium resistance in ginger
PRJ-008962	Technical support, extension and minor use development for the Ginger Industry
PRJ-010078	Determining pathogenicity and methyl bromide control of ginger nematodes
PRJ-010162	Regional ginger extension program

## Research Program: HONEYBEE AND POLLINATION

Deliverable	2016-17 Budget	Funding Sources
Supporting RD&E that will secure a productive, sustainable and more profitable Australian beekeeping industry and secure the pollination of Australia's horticultural and agricultural crops.	\$824,010	Industry levy and industry voluntary contributions

### Research Projects

Project Number	Project Title
<b>New</b>	
PRJ-010313	Development of honeybee products from a biodiversity hotspot
<b>Continuing</b>	
PRJ-009334	External attractant trap for Small Hive Beetle
PRJ-009770	Verifying the origin of Australian honeys by analysis of their pollen content
PRJ-009987	Reducing the impact of Nosema and viruses by improving honeybee nutrition
PRJ-009757	Assessing the mating quality of Australian queen bees
PRJ-009819	Honey Bee and Pollination Program communications 2015-18
PRJ-009904	Selection and development of Australian hygienic honey bee lines
PRJ-009186	Active Australian Leptospermum honey: new sources and their bioactivity
PRJ-010226	Improving biosecurity resources and better understanding bee health in Australia
<b>Due for completion 2016-17</b>	
PRJ-009748	Risk assessment for the Large African Hive beetle
PRJ-007765	A pheromone trap to catch queen bees
PRJ-010167	Market opportunity Australian royal jelly produced with new labour saving technology
PRJ-010219	Regional economic multiplier impacts potential pollinator deficits across crops
PRJ-010299	Framework for assessing risk to ecosystem for honey bees
PRJ-010257	Progressing implementation of genetic selection in Australian honey bees
PRJ-010167	Market opportunity Aust. royal jelly produced with new labour saving technology

## Research Program: HORSE (INCLUDING HENDRA VIRUS)

Deliverable	2016-17 Budget	Funding Sources
Working with the Thoroughbred horse industry to develop a program of investment should funding become available and minimising the impact of Hendra virus.	\$20,000	RIRDC core funds

### Research Projects

Project Number	Project Title
<b>Due for completion 2016-17</b>	
PRJ-008213	Models that predict risk for Hendra virus transmission from flying fox to horses.

## Research program: PASTURE SEEDS

Deliverable	2016-17 Budget	Funding Sources
To invest in prioritised RD&E that maximises the opportunities and minimise the risks for a profitable and environmentally sustainable temperate pasture seed industry, and that creates a domestic and global demand from this reputation.	\$385,040	Industry levy

## Research Projects

Project Number	Project Title
<b>Continuing</b>	
PRJ-006081	Evaluating different fertilisers in lucerne seed production
PRJ-009750	Molecular markers for cultivar ID and seed certification in pasture legumes
PRJ-009751	Potential exotic virus threats to lucerne seed production in Australia
PRJ-009839	Improved subterranean clover seed production from multiple disease resistance
PRJ-009886	Capitalising on the discovery of Messina for the pasture seeds Industry
PRJ-009988	Australian Pastures Genebank
<b>Due for completion 2016-17</b>	
PRJ-009968	Pasture Improvement Initiative
PRJ-008515	Lucerne Australia communication and adoption project

## Research program: RICE

Deliverable	2016-17 Budget	Funding Sources
To improve the productivity and sustainability of the Australian rice industry through the organisation, funding and management of a research, development and extension program that is aligned with industry reality and stakeholder needs.	\$3,900,600	Industry levy

## Research Projects

Project Number	Project Title
<b>Continuing</b>	
PRJ-009920	MaNage Rice
PRJ-009923	Weed control in Australian rice
PRJ-009805	Next generation healthy rice
PRJ-010136	Herbicide resistance in rice
PRJ-007580	Cold tolerant traits and QTLs for improved efficiency of rice breeding program
PRJ-009772	Moving forward with NIR and remote sensing
PRJ-009363	Travel to TRRC – Philippines
PRJ-010020	Trace element contribution to plant disease and cereal nutritional value in rice
PRJ-009790	Rice variety nitrogen & agronomic management
PRJ-009950	Australian Rice Partnership 2
PRJ-010188	Rice pest and disease biosecurity II
PRJ-010198	Northern Australia rice industry
PRJ-010400	Changes in rice water use – scoping study
<b>Due for completion 2016-17</b>	
PRJ-008565	Characterisation of rice blast races present in Australia
PRJ-009181	Social factors influencing technology adoption in the rice industry
PRJ-009197	Growth regulator evaluation in Australian rice crops
PRJ-009271	Developing and testing tools for measuring and managing variability in rice
PRJ-007835	Farmers newsletter (IREC)
PRJ-008765	A study of microwave-based weed management in the rice industry
PRJ-008800	Communication and adoption project for the rice industry
PRJ-008768	Defining the link between rice grain protein profiles and rice grain quality
PRJ-009296	Rice extension coordination
PRJ-007707	Nuffield Scholarship for a ricegrower

## Research program: TEA TREE OIL

Deliverable	2016-17 Budget	Funding Sources
To support the continued development of a profitable, productive and environmentally sustainable Australian tea tree oil industry that has established international leadership in marketing, value adding, product reliability and production.	\$227,754	RIRDC core funding and industry voluntary contributions

## Research Projects (Tea Tree oil, cont)

Project Number	Project Title
<b>Due for completion 2016-17</b>	
PRJ-009997	Tea tree oil industry communications
PRJ-008670	Biology, epidemiology and management of Elsinoe leaf spot in tea tree
PRJ-009617	Developing elite clones and seed for improvements in productivity and profit

## Research program: BETTER SEASONAL FORECASTING

Deliverable	2016-17 Budget	Funding Sources
Project management of, and financial contribution to, the RD&E for Profit 'Better seasonal forecasting' project.	\$1,002,900	Australian Government grant and partner contributions

## Research program: EXTENSION AND ADOPTION FOR AUSTRALIAN FARMERS AND FISHERS

Deliverable	2016-17 Budget	Funding Sources
Project management of, and financial contribution to, the RD&E for Profit 'Extension and Adoption for Australian Farmers and Fishers' project.	\$552,000	Australian Government grant and partner contributions

## Research Program: PRIMARY INDUSTRIES HEALTH AND SAFETY PARTNERSHIP

Deliverable	2016-17 Budget	Funding Sources
To support increasingly healthy, safe and productive working lives in the primary industries through investment in RD&E to drive sustainable improvements to work health and safety outcomes.	\$275,000	Voluntary partner contributions

## Research Projects

Project Number	Project Title
<b>New</b>	
Contracting in 2015-16	Communications for the Primary Industries Health and Safety Program 2016-17
<b>Due for completion 2016-17</b>	
Contracting in 2015-16	Quad bike training for primary industries
Contracting in 2015-16	Developing resources for work health and safety training in primary industries
PRJ-010155	Communications for the Primary Industries Health and Safety Program 2015-16
PRJ-010060	Reducing rates of death and injury in the Australian fishing industry



# Goal 3 .



***Encourage  
diversity and  
advance the  
potential of  
people in rural  
industries  
and their  
communities***

People using land for rural industries confer a range of benefits on society by maintaining and sustaining rural landscapes while undertaking a range of farm business-related activities. These activities convert land into an asset that creates employment, economic activity, export income and contributes to vibrant rural and regional communities.

By focusing on the diversification of individual enterprises the broader rural industry sector will benefit through the spreading of risk, the encouragement of innovation adoption, entry into a diverse mix of domestic and international markets, and potentially greater regional economic activity and employment opportunities.

To maximise benefits accrued to farmers and the broader Australian community, RIRDC facilitates access to knowledge for new and existing farmers to diversify their operations to spread income risk and build resilience. Effective diversification practices can reduce the impacts of financial, environmental and market pressures.

In order for RIRDC research to be adopted and for industries to grow and be valuable, people in rural industries must have the skills and knowledge to make informed decisions about the future of their enterprises and industries. While new technologies, systems, processes and business models are important for rural industries to grow, people play a crucial enabling role.

To support people in rural industries, RIRDC invests in a number of leadership, capacity and skills development programs. This includes developing partnerships with other investors, industry and community groups to ensure a coordinated effort to build capacity.

RIRDC's investments in this goal are across all three phases of the life-cycle – 'New', 'Emerging' and 'Established'.

### ● Goal 3 Strategies

Invest in leadership and capacity building programs

Encourage the adoption of new practices and technologies in rural industries

Increase the connectedness of people in the rural sector and their communities

Encouraging the diversification of individual rural enterprises

## GOAL 3 INVESTMENT BUDGET FOR 2016-17: \$1,187,000

### Research Program: RESEARCH PROGRAM: INVESTING IN PEOPLE

Deliverable	2016-17 Budget	Funding Sources
To develop leadership and human capacity for primary industries and their communities and contribute to enhancing future labour supply to meet demand in primary industries for skilled occupations. The Program primarily invests in scholarships and programs that develop and build the skills and leadership potential of people in the rural sector.	\$147,000 (Investing in People)	RIRDC core funding and external contributions
	\$310,000 (Rural Women's Award)	
	\$330,000 (Horizon Scholarship)	
	\$50,000 (PhD scholarships)	

### Research Projects

Project Number	Project Title
<b>New</b>	
Contracting in 2016-17	2016 Horizon Scholarship successful applicants
Contracting in 2016-17	2016 RIRDC Rural Women's Award
Contracting in 2016-17	2016 ABC Heywire Sponsorship
Contracting in 2016-17	2016-17 PhD Scholarships
<b>Continuing</b>	
PRJ-008950	ARLP Course 23: Sponsorship for 2015
PRJ-009250	Scholarship – P. Tobias (Gene expression analysis of plants with myrtle rust)
PRJ-009641	PhD Scholarship Top Up – M. Chaliha
PRJ-010002	PhD Scholarship Top Up – M. Rashid
PRJ-008441	Horizon Scholarship 2012 – H. Schulz (MLA – CSU)
PRJ-008970	Horizon Scholarship 2013 – A. Lucas (GRDC – UTas)
PRJ-009580	Horizon Scholarship 2014 – M. McCallum (GRDC – Uni of Adelaide)
PRJ-009573	Horizon Scholarship 2014 – C. Broun (GRDC – UWA)
PRJ-009572	Horizon Scholarship 2014 – J. Kitschke (GRDC – Adelaide University)
PRJ-009579	Horizon Scholarship 2014 – F. Taylor (CRDC – Uni of Sydney)
PRJ-009577	Horizon Scholarship 2014 – S. Johnston (CRDC – Uni of Sydney)
PRJ-009576	Horizon Scholarship 2014 – G. Campbell (GRDC – Uni of Sydney)
PRJ-009574	Horizon Scholarship 2014 – M. Wellington (CRDC – UQ)
PRJ-009578	Horizon Scholarship 2014 – A. Warren (RIRDC Bee Program – UNE)
PRJ-010074	Horizon Scholarship 2015 – R. Pitchford (AWI Uni of Adelaide)
PRJ-010058	Horizon Scholarship 2015 – C. a'Beckett (CRDC – Melbourne Uni)
PRJ-010040	Horizon Scholarship 2015 – A. Gill (GRDC – Uni of Adelaide)
PRJ-009634	Horizon Scholarship 2014 – J. Scifleet (ANZ – Uni of Sydney)

Project Number	Project Title
PRJ-009583	Horizon Scholarship 2014 – S. Coggins (GRDC – Uni of Sydney)
PRJ-009581	Horizon Scholarship 2014 – F. Cowden (GRDC – Uni of Melb)
PRJ-010052	Horizon Scholarship 2015 – E. Seymour (GRDC – UQ)
PRJ-010054	Horizon Scholarship 2015 – R. Mostert (GRDC – UWA/Murdoch)
PRJ-010055	Horizon Scholarship 2015 – E. J. Lim (GRDC – Uni of Sydney)
PRJ-010044	Horizon Scholarship 2015 – J. Whitten (AECL – UNE)
PRJ-010046	Horizon Scholarship 2015 – Returning Scholar L. Bruce (AECL – CSU)
PRJ-010050	Horizon Scholarship 2015 – N. Grant (GRDC – CSU)
PRJ-010051	Horizon Scholarship 2015 – M. Champness (GRDC – CSU)
PRJ-010105	Horizon Scholarship 2015 – L. Vella (HIA Uni of Sydney)
PRJ-009622	Horizon Scholarship 2014 – A. Markey (AECL – CSU)
PRJ-010042	Horizon Scholarship 2015 – C. Daffey (MLA – James Cook University)
PRJ-010056	Horizon Scholarship 2015 – S. Nevison (CRDC – Uni of Sydney)
PRJ-010041	Horizon Scholarship 2015 – A. Munro (RIRDC – CSU)
PRJ-010062	Horizon Scholarship 2015 – J. McIntosh (RIRDC CSU)
PRJ-009575	Horizon Scholarship 2014 – A. Carpenter (AWI – UNE)

#### Due for completion 2016-17

PRJ-009683	PhD Scholarship Top Up – T. Simnadis
PRJ-008908	Horizon Scholarship 2013 – M. Rogan (SRDC – UQ)
PRJ-008909	Horizon Scholarship 2013 – A. Trinder (McCaughy Memorial Institute - CSU)
PRJ-008911	Horizon Scholarship 2013 – P. Sanderson (CRDC – CSU)
PRJ-008912	Horizon Scholarship 2013 – K. Johnston (MLA – UNE)
PRJ-008914	Horizon Scholarship 2013 – J. Kirkpatrick (CRDC – CSU)
PRJ-008917	Horizon Scholarship 2013 – A. Johnson (CRDC – UNE)
PRJ-008918	Horizon Scholarship 2013 – C. Raleigh (RIRDC – CSU)
PRJ-008913	Horizon Scholarship 2013 – M. Baker (RIRDC CME – CSU)
PRJ-008971	Horizon Scholarship 2013 – S. Bell (GRDC – Marcus Oldham)
PRJ-008915	Horizon Scholarship 2013 – E. Miller (CRDC – CSU)
PRJ-009582	Horizon Scholarship 2014 – A. Martin (CRDC – UWA)
PRJ-009571	Horizon Scholarship 2014 – G. Scott (CRDC – UWS)

#### EXTENSION AND ADOPTION PROJECTS

Deliverable	2016-17 Budget	Funding Sources
Extension and adoption projects not yet identified.	\$75,000	Core funding

# Appendices

## A. Budget income and expenses for 2016-17

	Estimated actual	Budget estimate	Forward estimate	Forward estimate	Forward estimate
	2015-16 \$'000	2016-17 \$'000	2017-18 \$'000	2018-19 \$'000	2019-20 \$'000
<b>EXPENSES</b>					
Employee benefits	3,600	4,548	3,849	4,006	4,170
Supplier expenses	3,851	3,972	3,712	3,712	3,712
Grants	14,297	12,426	13,624	13,300	12,940
Depreciation and amortisation	160	160	160	160	160
<b>Total expenses</b>	<b>21,908</b>	<b>21,106</b>	<b>21,345</b>	<b>21,178</b>	<b>20,982</b>
<b>LESS:</b>					
<b>OWN-SOURCE INCOME</b>					
<b>Own-source Revenue</b>					
Industry contributions	1,498	1,623	1,485	1,395	1,395
Interest	600	600	600	600	600
Royalties	250	250	250	250	250
Provision of Goods Revenue	43	43	43	43	43
Other	1,454	1,231	838	578	588
<b>Total own-source revenue</b>	<b>3,845</b>	<b>3,747</b>	<b>3,216</b>	<b>2,866</b>	<b>2,876</b>
<b>Total own-source income</b>	<b>3,845</b>	<b>3,747</b>	<b>3,216</b>	<b>2,866</b>	<b>2,876</b>
<b>Net cost of (contribution by)</b>					
<b>Services</b>	<b>18,063</b>	<b>17,359</b>	<b>18,129</b>	<b>18,312</b>	<b>18,106</b>
<b>Revenue from government<sup>1</sup></b>					
Commonwealth contribution	16,563	17,359	18,129	18,312	18,106
<b>Total revenue from government</b>	<b>16,563</b>	<b>17,539</b>	<b>18,129</b>	<b>18,312</b>	<b>18,106</b>
<b>Surplus (Deficit) attributable to Australian Government</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total comprehensive income (loss) attributable to the Australian Government</b>	<b>1,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### Notes

1. Revenue from Government includes a Commonwealth contribution under the PIRD Act and levies collected from industry by the Department of Agriculture and Water Resources for R&D activities.

## B. Strategic Science and Research Priorities – Projects listed for 2016–17

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
<b>1. Food</b>			
1.1: Knowledge of global and domestic demand, supply chains and the identification of country specific preferences for food Australia can produce.	PRJ-010364	ABB	NSW component of Australian Biomass for Bioenergy Assessment
	PRJ-010372	ABB	SA component of Australian Biomass for Bioenergy Assessment
	PRJ-010373	ABB	VIC component of Australian Biomass for Bioenergy Assessment
	PRJ-010374	ABB	WA component of Australian Biomass for Bioenergy Assessment
	PRJ-010375	ABB	QLD component of Australian Biomass for Bioenergy Assessment
	PRJ-010376	ABB	USC component of Australian Biomass for Bioenergy Assessment
	PRJ-010377	ABB	QUT component of Australian Biomass for Bioenergy Assessment
	PRJ-010379	ABB	RIRDC - ARENA project Australian Biomass for Bioenergy Assessment
	PRJ-010380	ABB	Julie Bird project management Australian Biomass for Bioenergy Assessment
1.2: Knowledge of the social, economic and other barriers to achieving access to healthy Australian foods.	PRJ-010146	NRI	Food equity
	PRJ-010396	NRI	Local to Global: farmer cooperation for high value export markets.
1.3: Enhanced food production	PRJ-005158	NEP	Development of the Kakadu plum industry in northern Australia
	PRJ-005621	CME	Poultry CRC (09/10 to 16/17)
	PRJ-005882	CME	Feed Grains R&D Partnership (starting in 2010/11)
	PRJ-006081	PSE	Evaluating different fertilisers in lucerne seed production
	PRJ-007382	CME	Robert A Swick, UNE Poultry Research Hub
	PRJ-007580	RIC	Cold tolerant traits and QTLs for improved efficiency of rice breeding program
	PRJ-007615	FCR	Improved oat varieties for hay production: national program IV
	PRJ-007666	NEP	Hazelnuts in Australia: Opportunities for long-term development
	PRJ-007678	NEP	Improving the capacity of primary industries to withstand cyclonic winds
	PRJ-007707	RIC	Nuffield Scholarship for a ricegrower
	PRJ-007765	HBE	A pheromone trap to catch queen bees
	PRJ-007807	NEP	A method to screen new crop prospects
	PRJ-007835	RIC	Farmers newsletter (IREC)
	PRJ-008308	GIN	Improved tissue culture production of ginger clean planting material
	PRJ-008515	PSE	Lucerne Australia communication and adoption project
	PRJ-008532	GIN	Improving soil health to suppress soilborne diseases of ginger

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-008565	RIC	Characterisation of rice blast races present in Australia
	PRJ-008714	CME	Loop-mediated isothermal amplification tests to detect poultry pathogens
	PRJ-008715	CME	Surveillance and pathotyping of Australian IBVD
	PRJ-008722	CME	Dietary manipulation of nutrient-specific appetite in broiler chickens
	PRJ-008765	RIC	A study of microwave-based weed management in the rice industry
	PRJ-008768	RIC	Defining the link between rice grain protein profiles and rice grain quality
	PRJ-008800	RIC	Communication and adoption project for the rice industry
	PRJ-008962	GIN	Technical support, extension and minor use development for the ginger Industry
	PRJ-009045	NEP	Capacity building and communications for the wildflower industry stage 2
	PRJ-009075	CME	Post-hatch management for improved broiler locomotion
	PRJ-009099	CME	Whole grain feeding for chicken meat production
	PRJ-009181	RIC	Social factors influencing technology adoption in the rice industry
	PRJ-009186	HBE	Active Australian leptospermum honey: new sources and their bioactivity
	PRJ-009197	RIC	Growth regulator evaluation in Australian rice crops
	PRJ-009271	RIC	Developing and testing tools for measuring and managing variability in rice
	PRJ-009296	RIC	Rice extension coordination
	PRJ-009334	HBE	External attractant trap for Small Hive Beetle
	PRJ-009388	NAP	Eliminate factors inhibiting redclaw farming from reaching its full potential
	PRJ-009407	NEP	New coffee varieties for the Australian subtropics
	PRJ-009427	NAP	Development of innovative tools for the detection and control of CAE virus
	PRJ-009441	BUF	Developing appropriate stunning methods for halal slaughter of water buffalo
	PRJ-009469	ALP	Method of castration in alpacas
	PRJ-009570	CME	Increasing renewable energy generation through embedded hybrid energy precincts
	PRJ-009588	NEP	Monitoring quality and bioactivity of kakadu plum in the Northern Territory
	PRJ-009614	NEP	Agronomic and extraction parameters for Centipeda (Part 2)
	PRJ-009626	GIN	Induced pythium and fusarium resistance in ginger
	PRJ-009627	FCR	Vetch varieties for grain and hay production for Australian farmers
	PRJ-009685	NAP	Optimising stock movement in processing plants and lairage – Stage 1 dogs
	PRJ-009692	NAP	Crocodiles have herpes: molecular characterisation and establishing aetiology
	PRJ-009748	HBE	Risk assessment for the Large African Hive beetle
	PRJ-009750	PSE	Molecular markers for cultivar ID and seed certification in pasture legumes
	PRJ-009751	PSE	Potential exotic virus threats to lucerne seed production in Australia

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-009757	HBE	Assessing the mating quality of Australian queen bees
	PRJ-009770	HBE	Verifying the origin of Australian honeys by analysis of their pollen content
	PRJ-009772	RIC	Moving forward with NIR and remote sensing
	PRJ-009784	CME	Improved broiler phosphorus utilization and transporter gene expression
	PRJ-009790	RIC	Rice variety nitrogen & agronomic management
	PRJ-009805	RIC	Next generation healthy rice
	PRJ-009819	HBE	Honey Bee and Pollination Program communications 2015-18
	PRJ-009832	NEP	Pests and diseases of truffles and their tree hosts in Australia
	PRJ-009839	PSE	Improved subterranean clover seed production from multiple disease resistance
	PRJ-009841	CME	Rapid detection & quantitation of Campylobacter jejuni/coli in processing
	PRJ-009886	PSE	Capitalising on the discovery of Messina for the pasture seeds industry
	PRJ-009891	CME	Vitamin K, bone integrity and broiler health
	PRJ-009904	HBE	Selection and development of Australian hygienic honey bee lines,
	PRJ-009910	CME	Addressing odour abatement and assessment knowledge gaps using PTR-TOFMS
	PRJ-009920	RIC	MaNage Rice
	PRJ-009923	RIC	Weed control in Australian rice
	PRJ-009946	CME	Reducing stable fly emergence in soils amended with litter
	PRJ-009950	RIC	Australian Rice Partnership 2
	PRJ-009959	NEP	Overcoming barriers to development of the Australian jujube industry
	PRJ-009961	NEP	Standards for seaweed production in Australia
	PRJ-009968	PSE	Pasture Improvement Initiative
	PRJ-009969	CME	Nuffield Australia farming scholarships – James Mifsud
	PRJ-009970	CME	Contribution to National Welfare RD&E capacity building
	PRJ-009978	NEP	Advanced biotechnology systems for propagation and breeding of Australian plants
	PRJ-009985	ALP	Studies on gastrointestinal nematodes of alpacas
	PRJ-009987	HBE	Reducing the impact of Nosema and viruses by improving honeybee nutrition
	PRJ-009988	PSE	Australian Pastures Genebank (14/15 – 18/19)
	PRJ-009989	NAP	Feasibility of a sustainable harvest of Agile wallabies in NT
	PRJ-009993	NAP	Communications for the dairy and fibre goat animal welfare standards/guidelines
	PRJ-009994	NAP	Development of game birds welfare standards and guidelines
	PRJ-010006	NEP	Australian Pastures Genebank (14/15 – 18/19) [See PRJ-09988]
	PRJ-010020	RIC	Trace element contribution to plant disease and cereal nutritional value in rice
PRJ-010045	NAP	Improved tenderness of alpaca carcasses using combined processing techniques	



Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-010047	NAP	Cross industry biosecurity and emergency animal disease awareness
	PRJ-010057	NEP	Quinoa as a new crop in Australia – stage 2
	PRJ-010072	PSE	Contribution to Pollination for Profit – PSE
	PRJ-010078	GIN	Determining pathogenicity and methyl bromide control of ginger nematodes
	PRJ-010083	RIC	Maximising on-farm irrigation profitability – southern connected systems
	PRJ-010091	NRI	Requirements, strengths and weaknesses of various agricultural supply chains
	PRJ-010092	NRI	Scoping study to consider how farm businesses can achieve scale of products
	PRJ-010093	NRI	Building on the megatrends – foresight and scenarios
	PRJ-010095	NRI	Developing knowledge to support farm businesses considering cooperatives
	PRJ-010102	NEP	Australian native foods information and extension project
	PRJ-010103	NEP	Australian native foods kakadu plum project
	PRJ-010132	NEP	The Australian Truffle Growers Guide
	PRJ-010136	RIC	Herbicide resistance in rice
	PRJ-010145	CME	Contribution to Waste to revenue: Novel fertilisers and feeds
	PRJ-010151	CME	Vaccination practices and factors that contribute to ILT outbreaks in VIC/NSW
	PRJ-010162	GIN	Regional ginger extension program
	PRJ-010167	HBE	Market opportunity Aust' royal jelly produced with new labour saving technology
	PRJ-010184	CME	Resilient plants for free range chicken meat farms
	PRJ-010188	RIC	Rice pest and disease biosecurity II
	PRJ-010198	RIC	Northern Australia rice industry
	PRJ-010208	CME	Moving from concept to control; use of phages for Campylobacter reduction
	PRJ-010216	CME	Formulating broiler diets based on protein and starch digestive dynamics
	PRJ-010219	HBE	Regional economic multiplier impacts potential pollinator deficits across crops
	PRJ-010220	CME	Critical amino acids to improve gut health of chickens fed reduced protein diets
	PRJ-010226	HBE	Improving biosecurity resources and better understanding bee health in Australia
	PRJ-010227	NAP	Providing new and emerging animal industries with up to date market assessments
	PRJ-010237	CME	A novel way to suppress growth of Campylobacter in chickens prior to processing
	PRJ-010243	NAP	Backoff! Invisible fences to protect working dogs at risk from poison baiting
	PRJ-010245	CME	Effects of an in-shed sprinkler cooling system multiple parameters
	PRJ-010247	HBE	The regional economic multiplier impacts of potential crop pollinator deficits
	PRJ-010248	CME	Target 2020: Better planning & development outcomes for the chicken meat industry
	PRJ-010253	CME	Novel, quantifiable diagnostic for Campylobacter detection on poultry carcasses.
PRJ-010256	CME	Enhancing stress resilience: better welfare, health, and productivity	

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-010257	HBE	Progressing implementation of genetic selection in Australian honey bees
	PRJ-010263	CME	Nuffield Australia farming scholarships – Ben Edser
	PRJ-010264	CME	A detect-alert-deter system for enhanced AI biosecurity and risk assessment
	PRJ-010276	CME	Clouds and Pasteurella multocida
	PRJ-010284	NAP	Boosting the productivity of sea urchin aquaculture using a dietary intervention
	PRJ-010299	HBE	Framework for assessing risk to ecosystem for honey bees
	PRJ-010313	HBE	Development of honey bee products from a biodiversity hotspot
	PRJ-010314	CME	Target 2020 litter supply and management
	PRJ-010321	CME	Development of a Myco-pesticide for control of lesser mealworm in broiler houses
	PRJ-010326	CME	Review and efficacy of antimicrobial nanomaterials for chicken meat processing
	PRJ-010332	CME	Analysis of innovative business models for improved chicken litter management
	PRJ-010333	NEP	Minor chemical consultant for small and non-levied industries
	PRJ-010340	NRI	Agricultural product validation project
	PRJ-010343	NEP	Emerging business models for the Kakadu plum industry
	PRJ-010344	NEP	Cocoa pod splitter
	PRJ-010365	CME	PhD-To investigate the effect of supplemental amino acids of broiler performance
	PRJ-010393	NEP	Development of a biosecurity plan for the Australian coffee industry
	PRJ-010398	NAP	Working dog extension project
	PRJ-010399	NEP	Research and development extension for the truffle industry
	PRJ-010400	RIC	Changes in rice water use – scoping study
	PRJ-010402	NAP	Working dog extension project
	PRJ-010403	CME	Evaluating the benefits of perches for meat chickens
	PRJ-010407	NAP	A 10-year R&D Plan for growing the Australian camel milk industry
	PRJ-010410	NAP	Solving key industry bottlenecks for sea urchin roe enhancement
	PRJ-010412	BUF	Parasitism and control strategies in domesticated buffalo populations
	PRJ-010413	NAP	Commencing implementation of a genetic eval. system for livestock working dogs
	PRJ-010446	CME	Coordinating the development of Biosecurity DVDs for the Australian chicken meat
	PRJ-010449	PSE	Lucerne seed wasp management
	PRJ-010453	NAP	Possible chinks in the crocodile armour: defining skin microbiota
	PRJ-007314	HZS	Investing in Youth Studentship Program 2011 – E. Lee (RIRDC – CSU)
	PRJ-008213	HEV	Models that predict risk for Hendra virus transmission from flying fox to horses
	PRJ-008441	HZS	Horizon Scholarship 2012 – H. Schulz (MLA – CSU)

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-008908	HZS	Horizon Scholarship 2013 – M. Rogan (SRA – UQ)
	PRJ-008909	HZS	Horizon Scholarship 2013 - A. Trinder (McCaughy Memorial Institute/Rice) – CSU
	PRJ-008911	HZS	Horizon Scholarship 2013 – P. Sanderson (CRDC - CSU)
	PRJ-008912	HZS	Horizon Scholarship 2013 – K. Johnston (MLA – UNE)
	PRJ-008913	HZS	Horizon Scholarship 2013 – M. Baker (RIRDC CME – CSU)
	PRJ-008914	HZS	Horizon Scholarship 2013 – J. Kirkpatrick (CRDC – CSU)
	PRJ-008915	HZS	Horizon Scholarship 2013 – E. Miller (CRDC - CSU)
	PRJ-008917	HZS	Horizon Scholarship 2013 – A. Johnson (CRDC – UNE)
	PRJ-008918	HZS	Horizon Scholarship 2013 – C. Raleigh (RIRDC – CSU)
	PRJ-008970	HZS	Horizon Scholarship 2013 – A. Lucas (GRDC – UTas)
	PRJ-008971	HZS	Horizon Scholarship 2013 – S. Bell (GRDC – Marcus Oldham)
	PRJ-009250	SCH	Scholarship – P. Tobias (Gene expression analysis of plants with myrtle rust)
	PRJ-009571	HZS	Horizon Scholarship 2014 – G. Scott (CRDC – UWS)
	PRJ-009572	HZS	Horizon Scholarship 2014 – J. Kitschke (GRDC – Adelaide University)
	PRJ-009573	HZS	Horizon Scholarship 2014 – C. Broun (GRDC – UWA)
	PRJ-009574	HZS	Horizon Scholarship 2014 – M. Wellington (CRDC – UQ)
	PRJ-009575	HZS	Horizon Scholarship 2014 – A. Carpenter (AWI – UNE)
	PRJ-009576	HZS	Horizon Scholarship 2014 – G. Campbell (GRDC – Uni of Sydney)
	PRJ-009577	HZS	Horizon Scholarship 2014 – S. Johnston (CRDC – Uni of Sydney)
	PRJ-009578	HZS	Horizon Scholarship 2014 – A. Warren (RIRDC Bee Program – UNE)
	PRJ-009580	HZS	Horizon Scholarship 2014 – M. McCallum (GRDC – Uni of Adelaide)
	PRJ-009581	HZS	Horizon Scholarship 2014 – F. Cowden (GRDC – Uni of Melb)
	PRJ-009582	HZS	Horizon Scholarship 2014 – A. Martin (CRDC – UWA)
	PRJ-009583	HZS	Horizon Scholarship 2014 – S. Coggins (GRDC – Uni of Sydney)
	PRJ-009622	HZS	Horizon Scholarship 2014 – A. Markey (AECL – CSU)
	PRJ-009634	HZS	Horizon Scholarship 2014 – J. Scifleet (ANZ – Uni of Sydney)
	PRJ-009641	SCH	PhD Scholarship Top Up – M. Chaliha
	PRJ-009683	SCH	PhD Scholarship Top Up – T. Simnadis
	PRJ-010002	SCH	PhD Scholarship Top Up – M. Rashid
	PRJ-010040	HZS	Horizon Scholarship 2015 – A. Gill (GRDC – Uni of Adelaide)

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
1.3: Enhanced food production (cont.)	PRJ-010041	HZS	Horizon Scholarship 2015 – A. Munro (RIRDC – CSU)
	PRJ-010042	HZS	Horizon Scholarship 2015 – C. Daffey (MLA – James Cook University)
	PRJ-010044	HZS	Horizon Scholarship 2015 – J. Whitten (AECL – UNE)
	PRJ-010046	HZS	Horizon Scholarship 2015 – Returning Scholar L. Bruce (AECL - CSU)
	PRJ-010050	HZS	Horizon Scholarship 2015 – N. Grant (GRDC – CSU)
	PRJ-010051	HZS	Horizon Scholarship 2015 – M. Champness (GRDC – CSU)
	PRJ-010052	HZS	Horizon Scholarship 2015 – E. Seymour (GRDC – UQ)
	PRJ-010054	HZS	Horizon Scholarship 2015 – R. Mostert (GRDC – UWA/Murdoch)
	PRJ-010055	HZS	Horizon Scholarship 2015 – E. J. Lim (GRDC – Uni of Sydney)
	PRJ-010056	HZS	Horizon Scholarship 2015 – S. Nevison (CRDC – Uni of Sydney)
	PRJ-010058	HZS	Horizon Scholarship 2015 – C. a'Beckett (CRDC – Melbourne Uni)
	PRJ-010062	HZS	Horizon Scholarship 2015 – J. McIntosh (RIRDC CSU)
	PRJ-010074	HZS	Horizon Scholarship 2015 – R. Pitchford (AWI Uni of Adelaide)
	PRJ-010105	HZS	Horizon Scholarship 2015 – L. Vella (HIA Uni of Sydney)

## 7. Advanced Manufacturing

7.1: Knowledge of Australia's comparative advantages, constraints and capacity to meet current and emerging global and domestic demand.	PRJ-008670	TTO	Biology, epidemiology and management of Elsinoe leaf spot in tea tree
	PRJ-009617	TTO	Developing elite clones and seed for improvements in productivity and profit
	PRJ-009997	TTO	Tea tree oil industry communications
	PRJ-010143	TTO	Tea tree levy consultancy
7.2: Cross-cutting technologies that will de-risk, scale-up, and add value to Australian manufactured products.	PRJ-009998	TTO	Scientific evidence to support TTO within the EU/ SCCP cosmetics framework
	PRJ-010353	TTO	Occurrence of migrant polystyrene compounds derived from disposable lab-ware

## 8. Environmental Change

8.3: Options for responding and adapting to the impacts of environmental change on biological systems, urban and rural communities and industry.	PRJ-010345	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – Monash
	PRJ-010346	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – NSW DPI
	PRJ-010347	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – USQ
	PRJ-010348	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – Birchip
	PRJ-010349	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – DAFWA
	PRJ-010351	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – SARDI
	PRJ-010352	ISF	Using Improved Seasonal Forecasting to Increase Farmer Profitability –VIC DEDJTR

Strategic Research Priorities	RIRDC Project No.	RIRDC Program	Project
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8.3: Options for responding and adapting to the impacts of environmental change on biological systems, urban and rural communities and industry. (cont.)	PRJ-010408	TPE	Development of the Extension and Adoption Hub
	PRJ-010426	TPE	Evaluation and Research Support for a National Evaluation of Extension

### 9. Health

9.1: Better models of health care and services that improve outcomes, reduce disparities for disadvantaged and vulnerable groups, increase efficiency and provide greater value for a given expenditure.	PRJ-010060	PIH	Reducing rates of death and injury in the Australian fishing industry
	PRJ-010098	PIH	Cultural Influences for health and safety
	PRJ-010099	PIH	Managing sheep & wool production safety

## C. Rural Research Priorities – Projects listed for 2016-17

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
1. Advanced Technology	PRJ-005621	CME	Poultry CRC (09/10 to 16/17)
	PRJ-007382	CME	Robert A Swick, UNE Poultry Research Hub
	PRJ-007707	RIC	Nuffield Scholarship for a Ricegrower
	PRJ-008722	CME	Dietary manipulation of nutrient-specific appetite in broiler chickens
	PRJ-008765	RIC	A study of microwave-based weed management in the rice industry
	PRJ-009045	NEP	Capacity Building and Communications for the Wildflower Industry stage 2
	PRJ-009250	SCH	Scholarship – P. Tobias (Gene expression analysis of plants with myrtle rust)
	PRJ-009614	NEP	Agronomic and extraction parameters for Centipeda (Part 2)
	PRJ-009750	PSE	Molecular markers for cultivar ID and seed certification in pasture legumes
	PRJ-009751	PSE	Potential exotic virus threats to Lucerne seed production in Australia
	PRJ-009819	HBE	Honey Bee and Pollination Program communications 2015-18
	PRJ-009839	PSE	Improved subterranean clover seed production from multiple disease resistance
	PRJ-009841	CME	Rapid detection & quantitation of Campylobacter jejuni/coli in processing
	PRJ-009886	PSE	Capitalising on the discovery of Messina for the pasture seeds Industry
	PRJ-009969	CME	Nuffield Australia Farming Scholarships – James Mifsud
	PRJ-009970	CME	Contribution to National Welfare RD&E Capacity Building
	PRJ-009988	PSE	Australian Pastures Genebank (14/15 – 18/19)
	PRJ-009997	TTO	Tea Tree Oil Industry Communications
	PRJ-009998	TTO	Scientific evidence to support TTO within the EU/SCCP cosmetics framework
	PRJ-010072	PSE	Contribution to Pollination for Profit – PSE
	PRJ-010091	NRI	Requirements, strengths and weaknesses of various agricultural supply chains
	PRJ-010092	NRI	Scoping study to consider how farm businesses can achieve scale of products
	PRJ-010093	NRI	Building on the megatrends – foresight and scenarios
	PRJ-010095	NRI	Developing knowledge to support farm businesses considering cooperatives
	PRJ-010098	PIH	Cultural Influences for Health and Safety
	PRJ-010146	NRI	Food equity
	PRJ-010184	CME	Resilient plants for free range chicken meat farms
	PRJ-010208	CME	Moving from concept to control; use of phages for Campylobacter reduction

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
1. Advanced Technology (cont.)	PRJ-010227	NAP	Providing new and emerging animal industries with up to date market assessments
	PRJ-010237	CME	A novel way to suppress growth of Campylobacter in chickens prior to processing
	PRJ-010253	CME	Novel, quantifiable diagnostic for Campylobacter detection on poultry carcasses.
	PRJ-010256	CME	Enhancing stress resilience: better welfare, health, and productivity
	PRJ-010263	CME	Nuffield Australia farming scholarships – Ben Edser
	PRJ-010299	HBE	Framework for assessing risk to ecosystem for honey bees
	PRJ-010321	CME	Development of a Myco-pesticide for control of lesser mealworm in broiler houses
	PRJ-010326	CME	Review and efficacy of antimicrobial nanomaterials for chicken meat processing
	PRJ-010340	NRI	Agricultural product validation project
	PRJ-010353	TTO	Occurrence of migrant polystyrene compounds derived from disposable lab-ware
	PRJ-010364	ABB	NSW component of Australian Biomass for Bioenergy Assessment
	PRJ-010372	ABB	SA component of Australian Biomass for Bioenergy Assessment
	PRJ-010373	ABB	VIC component of Australian Biomass for Bioenergy Assessment
	PRJ-010374	ABB	WA component of Australian Biomass for Bioenergy Assessment
	PRJ-010375	ABB	QLD component of Australian Biomass for Bioenergy Assessment
	PRJ-010376	ABB	USC component of Australian Biomass for Bioenergy Assessment
	PRJ-010377	ABB	QUT component of Australian Biomass for Bioenergy Assessment
	PRJ-010379	ABB	RIRDC - ARENA project Australian Biomass for Bioenergy Assessment
	PRJ-010380	ABB	Julie Bird project management Australian Biomass for Bioenergy Assessment
	PRJ-010396	NRI	Local to Global: Farmer Cooperation for High Value Export Markets.
	PRJ-010398	NAP	Working dog extension project
	PRJ-010402	NAP	Working dog extension project
	PRJ-010407	NAP	A 10-year R&D Plan for growing the Australian camel milk industry
PRJ-010446	CME	Coordinating the development of Biosecurity DVDs for the Australian chicken meat	
PRJ-010449	PSE	Lucerne seed wasp management	
2. Biosecurity	PRJ-008213	HEV	Models that predict risk for Hendra virus transmission from flying fox to horses
	PRJ-008308	GIN	Improved tissue culture production of ginger clean planting material
	PRJ-008532	GIN	Improving soil health to suppress soilborne diseases of ginger
	PRJ-008715	CME	Surveillance and pathotyping of Australian IBDV

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
2. Biosecurity (cont.)	PRJ-008962	GIN	Technical support, extension and minor use development for the Ginger Industry
	PRJ-009334	HBE	External attractant trap for Small Hive Beetle
	PRJ-009427	NAP	Development of innovative tools for the detection and control of CAE virus
	PRJ-009626	GIN	Induced Pythium and Fusarium resistance in ginger
	PRJ-009748	HBE	Risk assessment for the Large African Hive beetle
	PRJ-009904	HBE	Selection and Development of Australian hygienic honey bee lines
	PRJ-009987	HBE	Reducing the impact of Nosema and viruses by improving honeybee nutrition
	PRJ-010078	GIN	Determining pathogenicity and methyl bromide control of ginger Nematodes
	PRJ-010162	GIN	Regional ginger extension program
	PRJ-010226	HBE	Improving biosecurity resources and better understanding bee health in Australia
PRJ-010393	NEP	Development of a biosecurity plan for the Australian coffee industry	
3. Soil, water and managing natural resources	PRJ-009570	CME	Increasing renewable energy generation through embedded hybrid energy precincts
	PRJ-009641	SCH	PhD Scholarship Top Up – M. Chaliha
	PRJ-009683	SCH	PhD Scholarship Top Up – T. Simnadis
	PRJ-009910	CME	Addressing odour abatement and assessment knowledge gaps using PTR-TOFMS
	PRJ-009946	CME	Reducing stable fly emergence in soils amended with litter
	PRJ-010002	SCH	PhD Scholarship Top Up - M. Rashid
	PRJ-010145	CME	Contribution to Waste to revenue: Novel fertilisers and feeds
	PRJ-010248	CME	Target 2020: Better planning & development outcomes for the chicken meat industry
4. Adoption of R&D	PRJ-005158	NEP	Development of the Kakadu plum industry in northern Australia
	PRJ-005882	CME	Feed Grains R&D Partnership (starting in 2010/11)
	PRJ-006081	PSE	Evaluating different fertilisers in lucerne seed production
	PRJ-007314	HZS	Investing in Youth Studentship Program 2011 – E. Lee (RIRDC - CSU)
	PRJ-007580	RIC	Cold tolerant traits and QTLs for improved efficiency of rice breeding program
	PRJ-007615	FCR	Improved oat varieties for hay production: national program IV
	PRJ-007666	NEP	Hazelnuts in Australia: Opportunities for long term development
	PRJ-007678	NEP	Improving the capacity of primary industries to withstand cyclonic winds
	PRJ-007765	HBE	A pheromone trap to catch queen bees
	PRJ-007807	NEP	A method to screen new crop prospects
	PRJ-007835	RIC	Farmers newsletter (IREC)
	PRJ-008441	HZS	Horizon Scholarship 2012 – H. Schulz (MLA – CSU)
	PRJ-008515	PSE	Lucerne Australia communication and adoption project
PRJ-008565	RIC	Characterisation of rice blast races present in Australia	



Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
4. Adoption of R&D (cont)	PRJ-008670	TTO	Biology, epidemiology and management of Elsinoe leaf spot in tea tree
	PRJ-008714	CME	Loop-mediated isothermal amplification tests to detect poultry pathogens
	PRJ-008768	RIC	Defining the link between rice grain protein profiles and rice grain quality
	PRJ-008800	RIC	Communication and adoption project for the rice industry
	PRJ-008908	HZS	Horizon Scholarship 2013 – M. Rogan (SRA – UQ)
	PRJ-008909	HZS	Horizon Scholarship 2013 – A. Trinder (McCaughey Memorial Institute/Rice) – CSU
	PRJ-008911	HZS	Horizon Scholarship 2013 – P. Sanderson (CRDC – CSU)
	PRJ-008912	HZS	Horizon Scholarship 2013 – K. Johnston (MLA - UNE)
	PRJ-008913	HZS	Horizon Scholarship 2013 – M. Baker (RIRDC CME – CSU)
	PRJ-008914	HZS	Horizon Scholarship 2013 – J. Kirkpatrick (CRDC – CSU)
	PRJ-008915	HZS	Horizon Scholarship 2013 – E. Miller (CRDC – CSU)
	PRJ-008917	HZS	Horizon Scholarship 2013 – A. Johnson (CRDC – UNE)
	PRJ-008918	HZS	Horizon Scholarship 2013 – C. Raleigh (RIRDC – CSU)
	PRJ-008970	HZS	Horizon Scholarship 2013 – A. Lucas (GRDC – UTas)
	PRJ-008971	HZS	Horizon Scholarship 2013 – S. Bell (GRDC – Marcus Oldham)
	PRJ-009075	CME	Post-hatch management for improved broiler locomotion
	PRJ-009099	CME	Whole grain feeding for chicken meat production
	PRJ-009181	RIC	Social factors influencing technology adoption in the rice industry
	PRJ-009186	HBE	Active Australian Leptospermum honey: new sources and their bioactivity
	PRJ-009197	RIC	Growth regulator evaluation in Australian rice crops
	PRJ-009271	RIC	Developing and testing tools for measuring and managing variability in rice
	PRJ-009296	RIC	Rice extension coordination
	PRJ-009388	NAP	Eliminate factors inhibiting redclaw farming from reaching its full potential
	PRJ-009407	NEP	New coffee varieties for the Australian subtropics
	PRJ-009441	BUF	Developing appropriate stunning methods for halal slaughter of water buffalo
	PRJ-009469	ALP	Method of castration in alpacas
	PRJ-009571	HZS	Horizon Scholarship 2014 – G. Scott (CRDC – UWS)
	PRJ-009572	HZS	Horizon Scholarship 2014 – J. Kitschke (GRDC – Adelaide University)
	PRJ-009573	HZS	Horizon Scholarship 2014 – C. Broun (GRDC – UWA)
	PRJ-009574	HZS	Horizon Scholarship 2014 – M. Wellington (CRDC – UQ)

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
4. Adoption of R&D (cont)	PRJ-009575	HZS	Horizon Scholarship 2014 – A. Carpenter (AWI – UNE)
	PRJ-009576	HZS	Horizon Scholarship 2014 – G. Campbell (GRDC – Uni of Sydney)
	PRJ-009577	HZS	Horizon Scholarship 2014 – S. Johnston (CRDC – Uni of Sydney)
	PRJ-009578	HZS	Horizon Scholarship 2014 – A. Warren (RIRDC Bee Program – UNE)
	PRJ-009579	HZS	Horizon Scholarship 2014 – F. Taylor (CRDC – Uni of Sydney)
	PRJ-009580	HZS	Horizon Scholarship 2014 – M. McCallum (GRDC – Uni of Adelaide)
	PRJ-009581	HZS	Horizon Scholarship 2014 – F. Cowden (GRDC – Uni of Melb)
	PRJ-009582	HZS	Horizon Scholarship 2014 – A. Martin (CRDC – UWA)
	PRJ-009583	HZS	Horizon Scholarship 2014 – S. Coggins (GRDC – Uni of Sydney)
	PRJ-009588	NEP	Monitoring quality and bioactivity of kakadu plum in the Northern Territory
	PRJ-009617	TTO	Developing elite clones and seed for improvements in productivity and profit
	PRJ-009622	HZS	Horizon Scholarship 2014 – A. Markey (AECL – CSU)
	PRJ-009627	FCR	Vetch varieties for grain and hay production for Australian farmers
	PRJ-009634	HZS	Horizon Scholarship 2014 – J. Scifleet (ANZ – Uni of Sydney)
	PRJ-009685	NAP	Optimising stock movement in processing plants and lairage – Stage 1 dogs
	PRJ-009692	NAP	Crocodiles have herpes: molecular characterisation and establishing aetiology
	PRJ-009757	HBE	Assessing the mating quality of Australian queen bees
	PRJ-009770	HBE	Verifying the origin of Australian honeys by analysis of their pollen content
	PRJ-009772	RIC	Moving forward with NIR and remote sensing
	PRJ-009784	CME	Improved broiler phosphorus utilization and transporter gene expression
	PRJ-009790	RIC	Rice variety nitrogen & agronomic management
	PRJ-009805	RIC	Next generation healthy rice
	PRJ-009832	NEP	Pests and diseases of truffles and their tree hosts in Australia
	PRJ-009891	CME	Vitamin K, bone integrity and broiler health
	PRJ-009920	RIC	MaNage Rice
	PRJ-009923	RIC	Weed control in Australian rice
	PRJ-009950	RIC	Australian Rice Partnership 2
	PRJ-009959	NEP	Overcoming barriers to development of the Australian jujube industry
	PRJ-009961	NEP	Standards for seaweed production in australia
	PRJ-009968	PSE	Pasture improvement initiative
	PRJ-009978	NEP	Advanced biotechnology systems for propagation and breeding of Australian plants

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
4. Adoption of R&D (cont)	PRJ-009985	ALP	Studies on gastrointestinal nematodes of alpacas
	PRJ-009989	NAP	Feasibility of a sustainable harvest of Agile wallabies in NT
	PRJ-009993	NAP	Communications for the dairy and fibre goat animal welfare standards/guidelines
	PRJ-009994	NAP	Development of game birds welfare standards and guidelines
	PRJ-010006	NEP	Australian Pastures Genebank (14/15 – 18/19) [See PRJ-09988]
	PRJ-010020	RIC	Trace element contribution to plant disease and cereal nutritional value in rice
	PRJ-010040	HZS	Horizon Scholarship 2015 – A. Gill (GRDC – Uni of Adelaide)
	PRJ-010041	HZS	Horizon Scholarship 2015 – A. Munro (RIRDC – CSU)
	PRJ-010042	HZS	Horizon Scholarship 2015 – C. Daffey (MLA – James Cook University)
	PRJ-010044	HZS	Horizon Scholarship 2015 – J. Whitten (AECL – UNE)
	PRJ-010045	NAP	Improved tenderness of alpaca carcasses using combined processing techniques
	PRJ-010046	HZS	Horizon Scholarship 2015 – Returning Scholar L. Bruce (AECL – CSU)
	PRJ-010047	NAP	Cross industry biosecurity and emergency animal disease awareness
	PRJ-010050	HZS	Horizon Scholarship 2015 – N. Grant (GRDC - CSU)
	PRJ-010051	HZS	Horizon Scholarship 2015 – M. Champness (GRDC – CSU)
	PRJ-010052	HZS	Horizon Scholarship 2015 – E. Seymour (GRDC – UQ)
	PRJ-010054	HZS	Horizon Scholarship 2015 – R. Mostert (GRDC – UWA/Murdoch)
	PRJ-010055	HZS	Horizon Scholarship 2015 – E. J. Lim (GRDC – Uni of Sydney)
	PRJ-010056	HZS	Horizon Scholarship 2015 – S. Nevison (CRDC – Uni of Sydney)
	PRJ-010057	NEP	Quinoa as a new crop in Australia – stage 2
	PRJ-010058	HZS	Horizon Scholarship 2015 – C. a'Beckett (CRDC – Melbourne Uni)
	PRJ-010060	PIH	Reducing rates of death and injury in the Australian fishing industry
	PRJ-010062	HZS	Horizon Scholarship 2015 – J. McIntosh (RIRDC CSU)
	PRJ-010074	HZS	Horizon Scholarship 2015 – R. Pitchford (AWI Uni of Adelaide)
	PRJ-010083	RIC	Maximising on-farm irrigation profitability – southern connected systems
	PRJ-010099	PIH	Managing sheep & wool production safety
	PRJ-010102	NEP	Australian native foods information and extension project
	PRJ-010103	NEP	Australian native foods Kakadu plum project
	PRJ-010105	HZS	Horizon Scholarship 2015 – L. Vella (HIA Uni of Sydney)

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
4. Adoption of R&D (cont)	PRJ-010132	NEP	The Australian Truffle Growers Guide
	PRJ-010136	RIC	Herbicide resistance in rice
	PRJ-010143	TTO	Tea tree levy consultancy
	PRJ-010151	CME	Vaccination practices and factors that contribute to ILT outbreaks in VIC/NSW
	PRJ-010167	HBE	Market opportunity Aust' royal jelly produced with new labour saving technology
	PRJ-010188	RIC	Rice pest and disease biosecurity II
	PRJ-010198	RIC	Northern Australia rice industry
	PRJ-010216	CME	Formulating broiler diets based on protein and starch digestive dynamics
	PRJ-010219	HBE	Regional economic multiplier impacts potential pollinator deficits across crops
	PRJ-010220	CME	Critical amino acids to improve gut health of chickens fed reduced protein diets
	PRJ-010243	NAP	Backoff! Invisible fences to protect working dogs at risk from poison baiting
	PRJ-010245	CME	Effects of an in-shed sprinkler cooling system multiple parameters
	PRJ-010247	HBE	The regional economic multiplier impacts of potential crop pollinator deficits
	PRJ-010257	HBE	Progressing implementation of genetic selection in Australian honey bees
	PRJ-010264	CME	A detect-alert-deter system for enhanced AI biosecurity and risk assessment
	PRJ-010276	CME	Clouds and Pasteurella multocida
	PRJ-010284	NAP	Boosting the productivity of sea urchin aquaculture using a dietary intervention
	PRJ-010313	HBE	Development of honey bee products from a biodiversity hotspot
	PRJ-010314	CME	Target 2020 litter supply and management
	PRJ-010332	CME	Analysis of innovative business models for improved chicken litter management
	PRJ-010333	NEP	Minor chemical consultant for small and non-levied industries
	PRJ-010343	NEP	Emerging business models for the Kakadu plum industry
	PRJ-010344	NEP	Cocoa pod splitter
	PRJ-010345	ISF	Improved use of seasonal forecasting to increase farmer profitability – Monash
	PRJ-010346	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – NSW DPI
	PRJ-010347	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – USQ
	PRJ-010348	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – Birchip
	PRJ-010349	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – DAFWA
	PRJ-010351	ISF	Improved Use of Seasonal Forecasting to Increase Farmer Profitability – SARDI
	PRJ-010352	ISF	Using Improved Seasonal Forecasting to Increase Farmer Profitability – VIC DEDJTR
	PRJ-010365	CME	PhD To investigate the effect of supplemental amino acids of broiler performance

Rural RD&E Priorities	RIRDC Project No.	RIRDC Program	Project
4. Adoption of R&D (cont)	PRJ-010399	NEP	Research and development extension for the truffle industry
	PRJ-010400	RIC	Changes in rice water use – scoping study
	PRJ-010403	CME	Evaluating the benefits of perches for meat chickens
	PRJ-010408	TPE	Development of the extension and adoption hub
	PRJ-010410	NAP	Solving key industry bottlenecks for sea urchin roe enhancement
	PRJ-010412	BUF	Parasitism and control strategies in domesticated buffalo populations
	PRJ-010413	NAP	Commencing implementation of a genetic eval' system for livestock working dogs
	PRJ-010426	TPE	Evaluation and research support for a national evaluation of extension
	PRJ-010453	NAP	Possible chinks in the crocodile armour: defining skin microbiota

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## D. Notification of significant events

The Corporation has reviewed this Plan in terms of section 19 of the *Public Governance, Performance and Accountability Act 2013*, which defines a particular class of proposal as ‘significant’ and notifiable to Ministers.

The Corporation confirms, in the context of section 15, that there are no ‘significant’ proposals in this Plan that should be drawn to the attention of Ministers.

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## E. Consultation with stakeholders

Communications channels between RIRDC and rural industries meet two essential functions — accountability and bringing industry influence to bear on the research agenda. At the peak industry level, the Corporation is accountable to:

- The National Farmers’ Federation
- The Australian Chicken Meat Federation.

These two organisations are prescribed by section 7 of RIRDC’s enabling legislation. This requires RIRDC to report on its activities each financial period. This accountability runs parallel to RIRDC’s Annual Report to the Minister and the Parliament.

Reporting for the 2015–2016 period occurred as follows:

- The National Farmers’ Federation on 12 November 2015
- The Australian Chicken Meat Federation on 23 November 2015

All of RIRDC’s research programs have advisory or reference panels with stakeholder membership.

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## F. Service charter

### Enabling legislation and the Board

RIRDC’s enabling legislation is the *Primary Industries Research and Development Act 1989* (the PIRD Act 1989).

The RIRDC Board is accountable to the Parliament of Australia through the Minister for Agriculture and Water Resources. It:

- Sets strategic direction and establishes policies for the Corporation
- Oversees operational and functional performance against budget and other key performance indicators on behalf of stakeholders.

### Core business

To facilitate a more profitable, dynamic and sustainable rural sector by maximising the knowledge outcomes from our RD&E investments for Australian industries and government in:

- New and emerging industries
- Established rural industries
- National rural issues

Core principles in RIRDC's approach to its mandate are:

**Collaboration**—RIRDC consults widely with our industry and government stakeholders to determine investment strategies and priorities and seeks strong collaborative arrangements with other funding partners and research providers where this can enhance outcomes.

**Facilitation**—RIRDC facilitates more effective use of community and scientific expertise in the creation of new knowledge and its adoption.

**Innovation**—RIRDC invests in innovative solutions to the problems and constraints facing its key stakeholders.

## Stakeholders

- The Australian Government on behalf of rural industries and taxpayers
- Industry funders
- Levy payers
- The Australian community
- Primary clients
- For RIRDC related industries, all participants in the production and marketing chain (producers, processors, distributors and consumers)
- On RIRDC's strategic cross-sectoral program, the National Farmers' Federation on behalf of all rural industries

## Reporting to stakeholders

There are four key accountability documents for stakeholders:

1. A five-year R&D Plan that sets out strategies, directions and performance indicators for the Corporation.
2. Five-year RD&E plans for each industry program within new and emerging industries, established rural industries and national rural issues.
3. An annual operational plan that sets out yearly objectives to give effect to the five-year R&D Plan, the five-year industry plans, the annual budget and annual research priorities
4. The annual report, which sets out achievements against objectives, budgets and administration costs.

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## *G. RIRDC Advisory Panels - Chairs*

### **Chicken Meat**

- Mr Gary Sansom

### **Primary Industries Health and Safety Partnership**

- Mr Gordon Gregory

### **Ginger**

- Mr Shane Templeton

### **Honeybee and Pollination**

- Dr Michael Hornitzky

### **Animal Industries (New, Developing and Maturing)**

- Dr Paul Donnelly

### **New and Emerging Plant Industries**

- Mr David McNeil

### **Pasture Seeds**

- Mr Chris Martin

### **Rice**

- Mr Ian Mason



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## *H. RIRDC Program abbreviations*

ABBA	Australian Biomass for Bioenergy Assessment
AECL	Australian Egg Corporation Limited
ALP	Alpaca
ARLP	Australian Rural Leadership Program
BBE	Bioenergy, Bioproducts and Energy
CME	Chicken Meat
CRO	Cross Sectoral
FCR	Fodder Crops
GIN	Ginger
HBE	Honeybee
HEV	Hendra Virus
HOR	Horse
HZS	Horizon Scholarship
IBDV	Chicken meat
IIP	Investing in People
ILT	Chicken meat
IREC	Irrigation Research and Extension Committee
ISF	Improved Seasonal Forecasting
KAN	Kangaroo
NAP	New Animal Products
NEP	New and Emerging Plant Industries
NIR	Near Infrared
NRI	National Rural issues
PIH	Primary Industries Health and Safety Partnership
PSE	Pasture Seeds
PTR-TOFMS	Proton Transfer Reaction–Time-of-Flight Mass Spectrometry
QTL	Quantitative Trait Loci
RIC	Rice
RNF	Rare Natural Fibres
RWA	Rural Women's Award
SCH	Scholarship
TRRC	Temperate Rice Research Conference
TTO	Tea Tree Oil
WNP	Wildflowers and Native Plants

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## *I. Corporate Directory*

### **Chair**

- Professor Daniela Stehlik 02 6271 4100

### **Managing Director**

- John Harvey 02 6271 4111

### **General Manager, Corporate**

- Christine Quick 02 6271 4150





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Note: RIRDC will relocate from  
Canberra to Wagga Wagga during 2016-17.

[www.rirdc.gov.au](http://www.rirdc.gov.au)

