Projects recognise importance of innovation

Twelve new R&D projects to drive increased profits for rural industries will soon be underway following a recent announcement by the Minister for Agriculture the Hon. Barnaby Joyce MP.

In welcoming $26.7 million of grants under the Rural R&D for Profit Programme, the Chair of the Council of Rural Research and Development Corporations Mr Selwyn Snell said the announcement recognised the importance of innovation for the future prosperity of Australia’s rural sector.

Through these projects the 15 Rural RDCs are working with each other and more than 35 other partners to deliver about $60 million worth of research investment.

“This is an incredibly important time for our food and fibre industries,” Mr Snell said. “The growing population and affluence across Asia means there are significant opportunities emerging in our nearest markets.

“But we have to compete strongly against global competitors and maximise our competitive advantages if we are going to capture the benefits. One of our advantages is a strong and successful research community that is actively being focused on current industry challenges and ensuring industries are well placed for emerging opportunities.

“Australia’s RDCs have again demonstrated their skill and capabilities in building investment and delivery partnerships that bring together governments, the research providers and industry to focus on critical issues.

“The 12 successful projects were selected from a competitive field of more than 50 applications, the result of an enormous effort across the RDCs and our partner organisations.

“We welcome the announcement of additional funding, and are looking forward to working with our project partners to quickly get these projects underway.”

ENDS

Project summaries attached.

For more information:
Council of Rural RDCs, Tim Lester, 02 6270 8875, 0437 524 933 secretariat@crrdc.com.au.
Project Summaries

The Hon. Barnaby Joyce MP, Minister for Agriculture, has approved funding of up to $26.7 million for 12 projects. Please note that some aspects of these projects, including funding, are subject to negotiation as funding agreements are settled.

Multi-scale monitoring tools for managing Australian tree crops - industry meets innovation

**Project leader:** Horticulture Innovation Australia Limited  
**Partners:** University of Queensland (UQ); University of Central Queensland; University of New England; University of Sydney; Avocados Australia; Simpson Farms; Australian Mango Industry Association; Australian Macadamia Society  
**Approved grant:** $3.45 million  
**Total project investment:** $7 million

The project will utilise the latest high resolution satellite imaging systems, cloud-based computing, data discovery and computationally efficient analytics together with on-ground robotics and an increasingly ‘connected’ producer base to provide growers with key innovative and transformative pathways to improve production and farm gate returns. This multi-stakeholder, multi-industry and collaborative project will deliver Australia’s tree crop industries with:

1. A national audit capability framework identifying the location, area and tree population of every commercial avocado, mango, macadamia orchards and banana plantations across Australia, and
2. A farm-level decision support tool utilising satellite image data streams and novel on-ground sensor systems, including machine vision and spectro-radiometric sensors, and robotic platforms for mapping fruit yield and quality, tree health and inflorescence counts.

**Media contact:** Amy Braddon, Horticulture Innovation Australia, 02 8295 2333  

Smarter Irrigation for Profit

**Project leader:** Cotton Research and Development Corporation  
**Partners:** Sugar Research Australia, Rural Industries RDC, Dairy Australia, University of Southern Queensland, National Centre for Engineering in Agriculture; Tasmanian Institute of Agriculture; CSIRO; NSW DPI; South Australian Research and Development Institute; Victorian Department of Economic Development; GVIA; Sundown Pastoral Co; Auscott Limited  
**Approved grant:** up to $4 million  
**Total project investment:** $10 million

This project is a partnership between the major irrigation industries of cotton, dairy, rice and sugar. It will target 3,000 irrigators to improve their individual enterprise profit by $20,000-40,000 per annum. The project has 10 key activities, four industries, 16 R&D partners, and 19 farmer managed learning sites across five states.

**Media contact:** Ruth Redfern, Cotton RDC, 02 6792 4088, 0408 476 341  
Waste to revenue: novel fertilisers and feeds

**Project leader:** Australian Pork Limited
**Partners:** Dairy Australia, Sugar Research Australia, Meat & Livestock Australia, Rural Industries RDC, University of Queensland, University of Western Australia.

**Approved grant:** $0.86 million

**Total project investment:** $2 million

This project will:

a) develop new waste treatment technologies that utilise algae, purple phototrophic bacteria and chemotrophs to recapture nutrients in waste as feed and fertilisers products

b) evaluate nutritive, agronomic and economic benefits of these new products against other alternatives,

c) overcome barriers to adoption by involving primary producers during field trials to assist early adopters through extension activities.

Adoption of these technologies will improve the sustainability, productivity and profitability of primary industry through the generation of new revenue streams and reduced input costs (feed, fertiliser).

**Media contact:** Janine Price, Australian Pork Limited, 0429 899 845

Fast-tracking and maximising the long-lasting benefits of weed biological control for on-farm productivity

**Project leader:** Meat & Livestock Australia

**Partners:** CSIRO, NSW Department of Primary Industries, Primary Industries and Regions South Australia, Queensland Department of Agriculture, Forestry and Fisheries, Victorian Department of Economic Development, TasWeed

**Approved grant:** $1.89 million

**Total project investment:** $5.8 million

The project will improve the control of six national priority agricultural weeds (parkinsonia, parthenium, blackberry, silverleaf nightshade, clyndropuntia, gorse). Success will be achieved by fast-tracking delivery of eight biocontrol agents to producers and is expected to reduce weed competition and herbicide use.

**Media contact:** Rose Glasser, Meat & Livestock Australia, 0408 729 165
Market and consumer insights to drive value chain innovation and growth

**Project leader:** Meat & Livestock Australia  
**Partners:** Victorian Department of Economic Development; Horticulture Innovation Australia Limited; CSIRO; Australian Seafood Cooperative Research Centre  
**Approved grant:** $2.87 million  
**Total project investment:** $5.8 million

The project will identify opportunities in export markets and help producers and their supply chain partners respond effectively to those opportunities to grow their businesses. It aims to build the capacity of agri-food supply chains to innovate and collaborate for market advantage by creating easy-to-access tools and strategies, including online resources and face-to-face workshops.

**Media contact:** Rose Glasser, Meat & Livestock Australia, 0408 729 165  

A profitable future for Australian agriculture: biorefineries for higher-value animal feed, chemicals and fuel

**Project leader:** Sugar Research Australia  
**Partners:** Forest and Wood Products Australia; Cotton RDC; Australian Pork Limited; Queensland University of Technology, Sugar Research Limited, Southern Oil Refining, Agrifuels Ltd  
**Approved grant:** $3.09 million  
**Total project investment:** $6.2 million

Australian agriculture must continually adapt to remain competitive in an environment of rising production costs, climate variability, pests and disease, compliance costs, and changing global patterns of production and consumption. One of the key pathways to a profitable future for Australian agriculture is to create biorefineries which generate higher value products from agricultural primary products, off-specification primary products, and low value or waste by-products. This project will engage Australia’s leading researchers in this field to develop the technologies needed to convert Australian agricultural and forestry feedstocks into new value-added animal feeds, chemicals and advanced fuels.

**Media contact:** Brad Pfeffer, Sugar Research Australia, 0419 175 815.  
**Improved use of seasonal forecasting to increase farmer profitability**

**Project leader:** Rural Industries RDC  
**Partners:** Cotton RDC, Grains RDC, Meat & Livestock Australia, Fisheries RDC, Sugar Research Australia, Horticulture Innovation Australia Limited, Bureau of Meteorology, university of Southern Queensland, Monash University, Birchip Cropping Group, Department of Economic Development Victoria, NSW Department of Primary Industries, South Australian Research and Development Institute, Department of Agriculture and Food, Western Australia  
**Approved grant:** $1.83 million  
**Total project investment:** $3.5 million

This project will improve the productivity and profitability of Australian farmers by bridging the gap between seasonal climate forecasts and on-farm business decisions. New tools will be developed and information and training provided so farmers are better able to use existing seasonal forecasts. The project will also look to improve seasonal forecasting capabilities of Australia’s primary forecasting model (POAMA/ACCESS).

**Media contact:** Damon Whittock, Rural Industries RDC, 02 6271 4175  

---

**Adaptive area-wide management of Queensland Fruit Fly using SIT: Guidelines for efficient and effective pest suppressions and stakeholder adoption**

**Project leader:** Horticulture Innovation Australian Limited  
**Partners:** Australian Grape and Wine Authority; Biobee; CSIRO; Queensland University of Technology (QUT); NSW Department of Primary Industries (DPI); Primary Industries South Australia (PIRSA); VIC Department of Primary Industries & Environment (DEPI)  
**Approved grant:** $2.35 million  
**Total project investment:** $4.7 million

The project will help to control the Queensland Fruit Fly, a major pest of Australian horticulture. It will integrate the release of sterile male flies into area-wide integrated pest management programmes. This will reduce crop losses caused by Queensland fruit fly damage, and will help Australian horticulture industries to access new markets for their products.

**Media contact:** Amy Braddon, Horticulture Innovation Australia, 02 8295 2333  
Stimulating private sector extension in Australian agriculture to increase returns from R&D

**Project leader:** Dairy Australia  
**Partners:** Meat & Livestock Australia, Horticulture Innovation Australia, Cotton Research and Development Corporation, Australian Pork Limited, Sugar Research Australia, University of Melbourne, Victorian Department of Primary Industries, NSW Department of Primary Industries  
**Approved grant:** $1.59 million  
**Total project investment:** $3.2 million

This project will:

- Improve profit on farm through a private sector that is more engaged in driving innovation based on the latest research and industry best practice;
- Make research more accessible to farmers through a more integrated and co-operative extension system; Identify barriers to private sector involvement in delivering R&D to farmers;
- Stimulate further growth of a capable private sector, through training and retention of professionals to ensure we have the extension skills and capability to meet industry needs;
- Build a stronger connection between end users and researchers by trialling different approaches to increase engagement.

**Media contact:** Mark Pearce, Dairy Australia, 0417 540 059  

Consolidating targeted and practical extension services for Australian Farmers and Fishers

**Project leader:** Rural Industries RDC  
**Partners:** Australian Egg Corporation Limited, Australian Grape and Wine Authority, Australian Pork Limited, Australian Wool Innovation, Cotton RDC, Dairy Australia, Grains RDC, Horticulture Innovation Australia Limited, Meat & Livestock Australia, Sugar Research and Development Corporation, Victorian Department of Primary Industries, Tasmanian Institute for Agriculture, Northern Territory Department of Primary Industries and Fisheries, NSW Local Land Services  
**Approved grant:** $0.81 million  
**Total project investment:** $1.63 million

This project is addressing the national issue of fragmentation of Australian agriculture extension activities which has been identified as reducing productivity and profitability for all stakeholders. Extension services have been a key approach in assisting Australian farmers and fishers to be responsive to change and be able to apply the latest innovation to their business. Over the last decade, the delivery of extension services has seen considerable change. In Australia we have extensive knowledge and expertise on extension options, implementation and needs but due to the considerable change that has occurred this knowledge is not readily accessible to inform decision making about optimising extension delivery as it could.

**Media contact:** Damon Whittock, Rural Industries RDC, 02 6271 4175
MIRprofit: integrating very large genomic and milk mid-infrared data to improve profitability of dairy cows

**Project leader:** Dairy Australia  
**Partners:** Victorian Department of Economic Development; National Herd Improvement Association; Australian Dairy Herd Improvement Scheme; Teagasc; University of Liege  
**Approved grant:** $0.927 million  
**Total project investment:** $1.9 million

The project combines very large genomic datasets and phenotypes derived from mid-infrared spectra of milk samples which are routinely assayed on milk samples on a very large scale across the industry. We will integrate the genomic and MIR information to provide farmers with accurate predictions of which cows will be most profitable at each lactation, the basis for selection and culling decisions.

**Media contact:** Mark Pearce, Dairy Australia, 0417 540 059  

Growing a profitable, innovative and collaborative Australian Yellowtail Kingfish aquaculture industry: bringing ‘white’ fish to the market

**Project leader:** Fisheries Research and Development Corporation  
**Partners:** South Australian Research and Development Institute, Clean Seas Tuna Ltd, NSW Department of Primary Industries  
**Approved grant:** $3 million  
**Total project investment:** $6 million

The project aims to develop more cost effective Yellowtail Kingfish feeds and feeding strategies. This will drive immediate production gains for Yellowtail Kingfish aquaculture. An additional focus is to build a Yellowtail Kingfish aquaculture R&D network to strengthen adoption of research outcomes.

**Media contact:** Peter Horvat, Fisheries RDC  