PROGRAM	RECIPIENT LEGAL ENTITY NAME	Consortium members	STATE	LOCATION	PROJECT / ACTIVITY TITLE	SUMMARY OF APPLICATION - Purpose of the grant	Total Funding (GST Excl)
National Landcare Program - Smart Farming Partnerships	Dairy Australia Limited	• Bega Cheese Ltd • Parmalat Australia Ltd • Fonterra Australia Pty Ltd • National Australia Bank • Datagene • Norco Pty Ltd • Murray Dairy	VIC	Melbourne	Sustainable Dairy Products - Meeting market and investor needs for evidence based metrics	This project will build the capacity of Australian dairy farmers to demonstrate the sustainability of their operations and traceability of their products whilst also improving their management of natural capital and climate risk. The project will build a whole-of-industry supported, farm-scale natural capital and climate risk management and digital reporting platform. The platform will be a world first in dairy industry sustainability data collection, collation and interrogation and will maintain the reputation of Australian dairy as a lead producer of 'green and clean' dairy products. The platform will drive adoption by building farmer awareness of best practice, their performance against industry standards and the potential public and economic benefits. Farmers who understand the link between natural capital assets and business outcomes are more resilient to market and climate shocks. Project partners include milk processors, investors, data managers, NRM agencies and farmers.	$480,000.00

| National Landcare Program - Smart Farming Partnerships | Queensland University Of Technology | • La Trobe University
• Deakin University
• The Organic Force
• Meat And Livestock Australia
• Australian Agricultural Company Limited
• Irrigation Research & Extension Committee
• Sustainability Victoria
• Office Of Environment And Heritage
• Green Industries Sa | QLD | Brisbane | Unlocking the true value of organic soil amendments, an innovative farm-ready tool for the effective management of manures and composts into farm fertiliser budgets for environmental, soil health and economic sustainability. | The failure to adequately integrate organic and mineral (from bagged fertilisers) nutrient sources is the low-hanging fruit of Australian farming sustainability. It has led to an unnecessary doubling-up of nutrient applications; massive excesses in farm nutrient budgets are creating multiple off-farm environmental issues of global consequences, with the cost of additional nutrients a major impact on profitability. This project will create a step-change in farmer perception of nutrients in organic soil amendments, increasing their sustainable use in farming systems and encouraging best practice management throughout the supply chain. It will develop and validate an innovative, farmer-friendly decision support tool for organo-mineral nutrient budgeting that links producers of amendments with farm users, underpinned by cross-industry demonstration sites to build confidence in the farming community to reduce fertiliser inputs and improve soil health. | $3,302,101.00 |

| National Landcare Program - Smart Farming Partnerships | Cotton Research and Development Corporation | • University of New England
• Queensland University of Technology | NSW | Narrabri | New technologies to improve natural resources (biodiversity) on Australian cotton farms | The Australian cotton industry is setting targets to improve its environmental footprint and produce sustainable cotton. This project aims to assist the industry meet these targets through four key activities in partnership with key stakeholders. Firstly by identifying cost-effective and new direct seeding methods, such as using drone technology, for establishing native vegetation corridors on Vertosol floodplains. Secondly, through the identification of priority areas for biodiversity conservation in cotton growing areas. Thirdly, by developing and deploying innovative acoustic technologies to actively monitor, manage and report on biodiversity targets at multiple scales. Finally, by engaging cotton value chain partners in a 'One tree per bale' business planning process and engagement activities targeting participant gender balance and cultural diversity to support the uptake of these cutting edge technologies. | $1,131,022.00 |

| National Landcare Program - Smart Farming Partnerships | Ag Excellence Alliance Incorporated | • South Australian No Till Farmers Association (SANTFA)
 • Commonwealth Scientific Industrial Research Organisation (CSIRO)
 • Grains Research and Development Corporation (GRDC) | SA | Burra | Warm and cool season mixed cover cropping for sustainable farming systems in south eastern Australia | Crop intensive farming systems are running down soil carbon levels, requiring increased inputs to maintain or increase yield without necessarily improving profitability. Mixed species cover cropping offers a new approach in the Australian context. It is a key component of some farming systems overseas but is yet to be adopted widely in southern Australia. Benefits of cover crops include improving soil organic carbon, structure and health, while decreasing weed and disease levels for following crops. Many potential cover crops exist and while growers are beginning to investigate these, they lack basic local knowledge to make informed decisions. In this project, a consortium of grower groups, CSIRO and SARDI will identify and demonstrate suitable cover crops across south eastern Australia. The impacts of cover cropping on soil health, nutrient cycling, organic carbon, and soil moisture will be measured, and the optimum timing and method to terminate the cover crops will be determined. | $1,291,000.00 |

| National Landcare Program - Smart Farming Partnerships | Katanning Land Conservation District Committee | • DW & SE Thompson
• Badgebup Aboriginal Corporation | WA | Katanning | Saline Bush Tucker - Integrating Traditional Knowledge with Modern Systems to Restore Degraded Land, Badgebup WA. | By creating a complete paddock to plate agricultural supply chain based on traditional Noongar saline bush foods, this project will revolutionise opportunities to improve degraded soils, restore native vegetation and increase agricultural productivity. The project brings together a Landcare Group, an Aboriginal Corporation and a farming enterprise in a unique partnership, with skilled sub-contractors, combining skills in farming, horticulture, monitoring, revegetation, marketing and traditional indigenous knowledge to create a cultivated supply of bush tucker for the fine food market. It'll pioneer shadehouse and paddock growing, harvesting equipment and a packing facility, and lead to on-country employment for indigenous people. The legacy of the project will be an opened global market for other farmers to sell saline bushfoods into, a training package to show them how, and an economically sustainable reason for landholders to restore the health of Australia's saline degraded soils. | $758,616.00 |

| National Landcare Program - Smart Farming Partnerships | Southern Gulf Nrm Ltd | • Desert Channels Qld Inc
• Northern Gulf Resource Management Group Ltd
• Qld Department of Agriculture and Fisheries | QLD | Mt Isa | e-beef smart farming in Northern Queensland, implementing grazing best management practice through demonstrating how timely management decisions enhance pastures, groundcover, soils, land condition, business profitability and adaptability | e-beef smart farming in Northern Queensland will establish on-ground, regionally relevant smart farms using innovative technology to enhance grazing management. This will be supported by a comprehensive extension approach and institutional partnerships to accelerate the uptake of whole-of-business grazing best management which will improve the natural resource base and profitability across an area over twice the size of Victoria. Extension professionals will partner with collaborators to maximize impact and ensure industry relevance. THROUGH action learning graziers will have the opportunity to see, touch and discuss the application of new and innovative technologies that will improve their grazing and land management, profitability and adaptability at demonstration e-beef e-beef smart farms and e-beef innovation and adaption hubs. The step change will see the technologies providing real-time data and information to better inform graziers of livestock performance and pasture levels. | $4,000,000.00 |
| National Landcare Program - Smart Farming Partnerships | James Cook University | • Agritech Solutions Pty Ltd
• Burdekin Productivity Services Limited
• Commonwealth Scientific and Industrial Research Organisation (CSIRO)
• QLD Department of Agriculture and Fisheries
• Wilmar Sugar Australia Limited | QLD | Ayr | Climate Smart Sugarcane Irrigation Partnerships (CSSIP) | CSSIP will minimise nutrient runoff, improve soil health and increase wetlands water quality by facilitating the adoption of world-class irrigation practices in sugarcane farming systems. Currently, best practice irrigation is assisted by an Irrigation Decision Support Tool (IDST) that provides evidence-based advice. However, IDSTs have not reached their full potential. Firstly, they do not integrate short to medium term weather forecasts (e.g. weekly to multi-weekly forecasts). Secondly, IDSTs do not operate at a spatial scale relevant to farmers. CSSIP will incorporate the Bureau or Meteorology's new high-resolution climate model into the Irrigation Decision Support Tool. Thirdly, IDSTs require substantial time in manual data entry, which can be alleviated using real-time monitoring via Internet of Things technologies. This will increase irrigation efficiency, reducing excessive | $1,586,884.00 |

		• Sugar Research Australia Limited • NQ Dry Tropics Ltd				runoff into river systems and onto the Reef, and, will help farmers save water and energy costs.	
National Landcare Program - Smart Farming Partnerships	University Of Sydney	• Local Land Services • Vantage NSW Pty Ltd • Penagcon Pty Ltd • Goanna Telemetry Systems Pty Ltd • ICT International Pty Ltd • Precision Cropping Technologies Pty Ltd • Australian Grain Technologies Pty Ltd • Commonwealth Scientific and Industrial	NSW	Camperdown	DigiFarm. A digitally enabled durable agroecosystem	Investment over the past century by the University of Sydney is culminating in an integrated approach to its farming education and research activities. DigiFarm is an important stage in this activity, bringing together the community, farmers and environmental stakeholders. We aim to develop a digitally enabled network which will simultaneously monitor crop and animal production (including native flora and fauna), and soil and ecosystem health. The network will enable the triple bottom line framework of social, environmental and financial accounting to optimally manage a production ecosystem. Building on current investments in Narrabri, we shall build a physical and virtual DigiFarm hub and satellite farm network for north-west NSW providing digital dashboards of 'health, production and social' metrics. We will create an education platform at Narrabri for farmers, agribusiness, schools, environmental stakeholders to experience the latest ag-innovation thinking	$2,372,457.00

		• Research Organisation (CSIRO) • Dryland Cotton Farmers Research Association Incorporated • NSW Wheat Research Foundation					
National Landcare Program - Smart Farming Partnerships	Southern Farming Systems Ltd	• Southern Farming Systems • McKillop Farm Management Group Inc • Agriculture Kangaroo Island • Federation University Australia • Precision Agriculture • Glenelg Hopkins Catchment Management Authority • Australian Fertiliser	VIC	Inverleigh	Building the resilience and profitability of cropping and grazing farmers in the high rainfall zone of Southern Australia.	This bold, innovative project brings a consortium of Farming Groups, landcare, industry bodies, private enterprise, Government agencies and a University from across three States to address soil acidification and build more resilient farm businesses. It improves the precision (timing, rate, location) where lime is applied on cropping and grazing farms and develops cost effective ways of rectifying subsoil acidity. The project unlocks value by actively involving all parties involved in the lime supply chain (farmers, advisors, industry associations, suppliers). The resilient farm businesses component strengthens farm decisions by combining the highly successful Grain & Graze decision procedures with four disparate pieces of vital real time information - soil water, pasture availability, commodity prices and climate data. Value is unlocked by bringing the data together in a dashboard with push notification and building skills and confidence in farmers (especially women and young farmers).	$3,642,850.00

		Services Association • Victorian Lime Producers Association • Department of Economic Development, Jobs, Transport and Resources				

| National Landcare Program - Smart Farming Partnerships | Department of Water and Environmental Regulation | • Peel-Harvey Catchment Council Inc
• Wilson Inlet Catchment Committee Inc
• Leschenault Catchment Council Inc
• Lower Blackwood LCDC
• Oyster Harbour Catchment Group Inc
• Western Australian Department of Primary Industries and Regional Development | WA | Perth | Using innovative technology and practices to build capacity and confidence of farmers to improve nutrient use efficiency on grazing farms in South West WA | This project will:
• improve nutrient use efficiency on grazing farms in South West WA to reduce pressures on waterways and estuaries from excess nutrients and increase farmer productivity and profitability.
• increase farmer confidence and capacity to optimise fertiliser use by establishing on-farm trials with champion farmers to demonstrate benefits of matching fertiliser application to productivity targets.
• trial and implement innovative technology to measure pasture productivity and soil nutrient status. This will build confidence in farmers to reduce unnecessary fertiliser application due to the perceived risk of loss of productivity and greatly expand current soil testing programs.
• support industry practice change to deliver more profitable pasture management on grazing farms from increased nutrient use efficiency.
• provide a high public benefit by improving water quality and biodiversity in priority regional estuaries. | $2,365,000.00 |

National Landcare Program - Smart Farming Partnerships	Monaro Farming Systems CMC Incorporated	• Tablelands Farming Systems • South East Local Land Services • Bookham Agricultural Bureau Inc	NSW	Bombala	Next Generation Forecasting - delivering dynamic data to optimise on-farm decision making	This project aims to dynamically combine data gathered from existing local sensor-derived monitoring networks with proven predictive modelling systems, within a user-friendly platform to optimise on-farm decision making. Currently producers utilise seasonal forecasts typically prepared twice a year (Autumn and Spring) to make key enterprise decisions which impact on farm system profitability & the natural resource feed base. The increasingly volatile farming environment, climatically & market wise, means that twice-yearly forecasts are no longer sufficient for effective decision making. Dynamic, not seasonal, forecasting is required to ensure the long term profitability of farming enterprises and the management of our landscape for next generation agriculture. To value-add onto significant investment in our current monitoring & modelling networks, we need innovation to make this data dynamic, real-time & take best practice, on-farm decision making to the next level.	$512,480.00
National Landcare Program - Smart Farming Partnerships	Mallee Sustainable Farming Inc.	• Commonwealth Scientific and Industrial Research Organisation (CSIRO) • South Australian Murray Darling Basin Natural Resources Management Board • Mallee Catchment Management Authority • University of Adelaide	VIC	Irymple	A holistic approach to seep management for preventing land degradation in the landscape	Mallee Seeps occur where perched groundwater reaches the surface, typically in low lying farm land. Seeps cause soils to become waterlogged and eventually salinized. Unmanaged seeps kill off vegetation rendering land unproductive. Seeps could seriously affect approx. 22,500 ha of Mallee farmland within ten years. The recent increase in seeps follows current best practice - encouraging summer weed prevention coupled with climate variability driving very high late season and summer rainfall. Farmers have identified poor water use on low fertility sands as leading to new seeps across mid-slope and swale areas. This project – aims to manage seeps: 1. Early Seeps detection using innovative remote sensing identifying high risk areas for seep formation 2. Preventing seep formation by demonstrating best high water use options for different land systems 3. Remediating existing seeps - creating a decision	$965,500.00

		• Insight Extension for Agriculture • AGRIvision • Coorong Tatiara Local Action Planning Association				support tool helping farmers identify and apply the best individual treatment	
National Landcare Program - Smart Farming Partnerships	Queensland Cane Growers Organisation Ltd	Queensland Sugar Limited	QLD	Brisbane	The Sustainable Sugar Project - Enhancing the traceability of sustainably grown Australian sugar to improve access to international markets using blockchain technology.	The Sustainable Sugar project seeks to improve the visibility of Australia's sustainably produced sugar. The project outcome will prove the amount of sugar entering the supply chain that can be shown as being sustainably produced. The objective of this project is to gain recognition for growers producing sugar sustainably under the industry best management practice program – Smartcane BMP. This will involve a partnership with sugar marketer QSL and will use blockchain technology. International sugar markets are being influenced by end-users (E.g. Coca Cola) who want to source 100% of their sugar from sustainable sources. Smartcane BMP demonstrates sugar that is sustainably produced as the program supports soil health, vegetation and biodiversity as well as productivity and profitability through best management practices. CANEGROWERS intend to leverage the sustainability	$2,246,728.00

						benefits of Smartcane BMP by creating a mechanism to identify the quantities of BMP sugar in the supply chain.	
National Landcare Program - Smart Farming Partnerships	Andrea Koch Agtech Pty Ltd	• University of Sydney • AGRIvision • FarmLab Pty Ltd	NSW	Riverview	Translating peer reviewed soil science into digital soil management tools and a new soil management system for land managers, using a novel collaborative innovation model	Australia's agriculture RD&E and soil science capabilities are world class but inefficient in translating soil science into management practices for land managers, leaving the science stranded. The agtech sector (agriculture-focused technology companies) offers agile, innovative pathways for translating research into practice. This project brings together soil scientists, agtech developers and agronomists to translate stranded soil science into digital soil management tools for land managers. The tools will be published and promoted widely to drive commercialisation and adoption by land managers. The project consortia - University of Sydney (soil scientists), Farmlab (agtech software developers), AGRIvision (agronomists) and Andrea Koch Agtech (project lead and observer) - will use an adaptive approach to innovation using an action research framework (cycles of plan, act, observe, reflect). The process model will be documented and extended to the RD&E sector to translate other stranded science	$1,108,122.00

| National Landcare Program - Smart Farming Partnerships | Southern Regional Natural Resource Management Association | • Tasmanian Seafood Industry Council
• Cradle Coast Authority
• Northern Tasmanian Natural Resource Management Association Inc
• Tassal Group Limited
• Petuna Pty Ltd
• Huon Aquaculture Company Pty Ltd | TAS | Denison | The Tasmanian Smart Seafood Partnership (Building A Collaborative And Consistent Approach To Support Sustainable Seafood Production, NRM And Effective Conservation And Restoration of Tasmania's Marine Biodiversity) | The project will increase the efficiency and effectiveness of marine biodiversity protection outcomes in Tasmanian's multi-use waterways by building upon established partnerships within the Tasmanian seafood industry, NRM organisations, training organisations, government and regulatory authorities, and community, Landcare and Indigenous groups. The project will: 1) Develop a consistent Sustainable Seafood Pathways training/skills set package for use within the Tasmanian aquaculture and fishing industries, community, Landcare and Indigenous groups; 2) Deliver to the seafood industry and community groups a marine biodiversity awareness program of Tasmania's multi-use waterways that utilises and delivers material from the skills set package; 3) Conduct and support specific on-ground activities with partners that demonstrate and deliver effective conservation and restoration of Tasmania's marine biodiversity in line with the recommendations within the skills set package. | $ 1,590,936 |