

**2018-19 Investment Call**  
**14 Proposals**

Project code	Proposal Title	Lead Investigator	Research Organisation	Project Summary
L.LSM.0018 <a href="#">More information here</a>	No more gaps with superior shrub systems	Hayley Norman	CSIRO / Murdoch University / University of Western Australia	This project will develop high-value shrub systems to improve utilisation of the summer/autumn/early winter feed base in Mediterranean and low rainfall mixed farming systems, with application to both sheep and cattle. Drought-tolerant shrubs provide nutrients to complement, and thereby improve the feed conversion ratio of crop and pasture residues during summer/autumn and reduce supplementation requirements.
L.LSM.0016 <a href="#">Project complete</a>	The nutritive value of modern crop stubbles	Dean Thomas	CSIRO	New crop cultivars, alternate crop species, modern harvesters and a reduction in the density of volunteer pasture plants have affected the nutritional value of modern crop stubbles. A recent scoping study found that modern crop stubbles are notoriously variable in quality, with non-cereal crops even more variable. This project will provide farmers with up-to-date digital information on the feeding value of modern stubbles.
B.AWW.0006	Phasing out of mulesing: cost, benefits and opportunities	Andrew Fisher	University of Melbourne	This project will examine the benefits and costs of ceasing Mulesing in prime lamb systems and will examine the key drivers for farmer behaviour and attitudes towards continuation of mulesing prime lambs' dams, and barriers for behavioural change towards mulesing-free systems. Outcomes will inform future extension programs and approaches to encourage phasing out of mulesing in prime lamb enterprises.
B.AHE.0325 <a href="#">Project complete</a>	The potential for vaccines against gastrointestinal nematodes of small ruminants	David Emery	University Of Sydney	Barbers pole worm (BPW) and scour worms cost Australian red meat industries at least \$535M pa in lost production and treatment costs. BPW has recently had a vaccine launched, however, knowledge and treatment of scour worm needs improving. This project will review literature of gastrointestinal nematodes in small ruminants, highlighting different approaches and technologies to aid future research.
B.AHE.0262 <a href="#">Project complete</a>	Formulating a research pathway to provide new options for flystrike control	Andrew Kotze Peter James	CSIRO Agriculture and Food The University of Queensland	A large amount of research into flystrike control had been conducted over many years; however, flystrike remains a serious problem for the sheep industry. This project will review past research on flystrike control methods and identify if modern scientific advances can provide new motivation to past approaches. Recommendations for future research programmes into flystrike control will also be made.

B.GBP.0040	Demonstrating the productivity and profitability of cattle grazing "Redlands" Leucaena in northern Queensland	Craig Lemin	The State of Queensland acting through the Department of Agriculture and Fisheries	The psyllid resistant "Redlands" (R12) Leucaena variety developed by MLA & UQ. A barrier to adoption of the variety is the lack of defendable and valid liveweight productivity data. B.NBP.1618 and supports previous found Redlands fed cattle produced 0.33kg on average per day, which was slightly under Wondergraze. This project is an extension of B.NBP.1618 and supports previous MLA investment to now provide replicated liveweight gain performance data from Redlands compared with but the 'psyllid susceptible' Wondergraze variety and demonstrate a cost benefit analysis of the Redlands variety. This project also includes an element of extension and awareness activity.
B.AHE.2020 <a href="#">Project complete</a>	Strategic and novel approaches to reducing flystrike in sheep	Mark Ferguson	neXtgen Agri Ltd	This project will conduct an extensive review of flystrike control and of new technological developments to produce a new strategy for the sheep industry that will provide the greatest future return on investigations This will be achieved through the review of literature, tools, chemicals and conventional and novel approaches for flystrike control and will result in the development of a strategy that identifies future pathways of investigation most likely to provide the greatest impact.
B.AHE.0261 <a href="#">Project complete</a>	Evaluation of the Sterile Insect Technique for Sheep Blowfly Control	Phillip W Taylor	Macquarie University	Sheep blowfly costs over \$200M annually in treatment costs and lost wool and body growth. Sterile Insect Technique (SIT) involves the release of large numbers of sterile male insects, and has been successful in eradicating pest insects in the past. This project will review the concept of using SIT to control sheep blowfly in Australia including a literature review, benefit-cost analysis, research plan and plans for a production and release program.
B.GBP.0039	"Paddock Power": lifting reproductive performance through evidence-based paddock design	Dionne Walsh & Kieren McCosker	NT DPIR	This project will assess the impact of paddock area and watered area (distance-to-water) on calf wastage and breeder herd performance in Northern Australia. It will quantify how much reducing paddock area and/or reducing distance-to-water could reduce calf wastage. The core research output will then be evidence-based recommendations on where to place new infrastructure to maximise return on investment.
P.PSH.1180	More lambs from ewe lambs through developing and extending best practice	Jason Trompf	J.T. Agri-Source Pty Ltd	Mating ewes to lamb at 12-15 months is an effective avenue to build ewe numbers and increase lamb supply. However, reproductive performance of ewe lambs is much lower than mature ewes and is highly variable. This project aims to significantly increase both the number of ewe lambs being mated and their reproductive performance by developing and validating best practices to deliver reproductive success.

B.GBP.0038	Optimising heifer development and management to increase whole herd profit	Stephen Lee	The University of Adelaide	Achieving maximum lifetime reproductive performance requires that heifers conceive early, calve unassisted, raise a viable calf and re-breed early. Only 65% of heifers joined in temperate zones achieve this status. This project comprises of an integrated research and development extension effort that will achieve a 10% increase in reproductive efficiencies.
L.LSM.0019	Unlocking the keys to ewe survival	Andrew Whale	Livestock Logic	Reducing ewe mortality during lambing is a high priority for the sheep industry. Currently, it is estimated that 80% of producers have non merino ewe mortality rates that do not meet the targets of industry best practice. This project is designed to improve understanding of the causes of death of non-Merino ewes over the lambing period and ultimately to reduce ewe mortality by 30%.
B.GBP.0032	Fit for purpose biochar to improve efficiency in ruminants	Rob Kinley	CSIRO Agriculture and Food	Ruminant production systems need strategies that will improve efficiency & reduce emissions to help achieve MLA's CN30 goal. The National Livestock Methane Program identified the inclusion of biochar into ruminants' diets as a high research priority. This project will demonstrate that the manufacture of biochar can be manipulated to yield a high quality, consistent product that can be readily incorporated into ruminant diets.
B.NBP.0813 <a href="#">More information here</a>	Increased pasture intake and reduced supplement requirements of cattle	Simon Quigley	The University of Queensland	Feed intake is controlled by the hypothalamus in response to signals from the gastrointestinal tract, liver, muscle and fat. This project aims to determine the pathways that integrate signals from the diet and peripheral tissues to control feed intake in ruminants. The overall aim is to utilise novel, non-nutritional approaches to increase feed intake when grazing nutrient deficient pastures reducing supplement requirements.