

Summary of Linkage Projects Proposals for Funding to Commence in 2009

Western Australia

The University of Western Australia

LP0990355 Dr MJ Considine; Prof JM Whelan; Mr CS Gordon

Approved Project Title **Influence of high temperature on phenology, metabolism and the fate of axillary buds and inflorescences in grapevine**

2009 : \$ 64,000

2010 : \$ 119,000

2011 : \$ 110,000

2012 : \$ 122,500

2013 : \$ 117,500

2014 : \$ 50,000

Primary RFCD 3003 HORTICULTURE

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Gascoyne Table Grape Growers Association

Department of Agriculture and Food Western Australia

Administering Organisation The University of Western Australia

Project Summary

Subtropical regions in Australia, due to a warm climate, land and water availability, have the potential to produce a variety of agricultural produce, particularly fruit, to meet market demand. However adoption of fruit crops, many of which, including table grape, have temperate origins, requires intensive management. Despite years of agronomic R&D, production remains variable due to a lack of fundamental knowledge on how climate impacts on the development cycle, particularly flowering, required to produce fruit. This proposal will carry out basic research to provide knowledge that will enable consistent production and expansion of table grape and other temperate crop industries.

LP0991809 Prof JL Cordery; Dr CW Soo; A/Prof DL Morrison; Dr SA Kiffin-Petersen

Approved Project Title **Improving knowledge transfer from training providers to organisations**

2009 : \$ 33,007

2010 : \$ 81,358

2011 : \$ 83,204

2012 : \$ 34,852

Primary RFCD 3502 BUSINESS AND MANAGEMENT

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Australian Institute of Management Western Australia

Administering Organisation The University of Western Australia

Project Summary

This research will identify factors within the control of organizations, business units and individuals that affect their capacity to transfer knowledge and skill effectively back into the workplace. Given the scale of national expenditure on training and development, this represents a significant opportunity to generate both economic and human capital benefits.

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LP0992107 Prof GJ Milne; Prof J Dold

Approved Project Title **Simulation Technology for Modelling Extreme Bushfire Behaviour**

2009 : \$ 27,500
2010 : \$ 52,500
2011 : \$ 45,000
2012 : \$ 57,500
2013 : \$ 37,500

Primary RFCD 2802 ARTIFICIAL INTELLIGENCE AND SIGNAL AND IMAGE PROCESSING

Collaborating/Partner Organisation(s)

Fire and Emergency Services Authority of Western Australia
Landgate

Administering Organisation The University of Western Australia

Project Summary

Extreme fires cause immeasurable damage to communities through destruction of homes and damage to infrastructure. Large, highly intense fires reduce biodiversity, take decades for recovery, increase greenhouse gas emissions and reduce carbon storage capacity. Climate change is likely to increase the frequency of extreme fire weather increasing the need for reliable fire spread prediction under extreme conditions and to reduce impact by preparedness and suppression. Incorporating an evidence-based fire spread model into a fire location forecasting system will give fire agencies early warning of potentially disastrous fires, enable early response to prevent fires and mitigate the consequence to life, property and the environment.

LP0990428 Dr NJ Mitchell; Dr MR Hipsey; Dr MR Kearney; Dr W Porter; Prof Dr M Sivapalan; Dr G Kuchling

Approved Project Title **Animals on the move - an integrated approach to selecting conservation reserves under climate change**

2009 : \$ 48,000
2010 : \$ 89,000
2011 : \$ 58,500
2012 : \$ 17,500

Primary RFCD 2707 ECOLOGY AND EVOLUTION

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

The Department of Environment and Conservation
Perth Zoo

Administering Organisation The University of Western Australia

Project Summary

Conserving biodiversity when faced with rapid changes in climate and land use is a major challenge facing conservation managers. Translocation - the process of moving species from one location to another - may be the best means of preventing species extinction, but the long-term climatic suitability of translocation sites is rarely considered. This project will develop and apply new methods for identifying climatically suitable habitats for a critically endangered tortoise, with the aim of selecting sites where the species can persist long-term with minimum management. The approach will have utility not only for management of endangered species, but also in selecting future climatic regions for raising commercially valuable species.

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LP0991615 Dr SF Pettigrew; Prof PG Quester; Ms K Chapman; Ms C Miller

Approved Project Title **Investigating the Indirect Effects of Child-Targeted Food Promotion on Children's Diets**

2009 : \$ 27,744
2010 : \$ 52,873
2011 : \$ 25,129

Primary RFCD 3502 BUSINESS AND MANAGEMENT

Collaborating/Partner Organisation(s)

Cancer Council New South Wales
 Cancer Council South Australia

Administering Organisation The University of Western Australia

Project Summary

Obesity is forecast to cost the Australian community more than \$58 billion in 2008. The prevention and reduction of obesity thus has the potential to create significant savings in terms of obesity-related treatment costs and impairments. Children have been identified as a population requiring particular attention in efforts to combat obesity. The proposed study will provide an enhanced understanding of the role that food promotion plays in sub-optimal food choices made by children and their parents. The results of the study will be translated into specific public policy recommendations to assist governments and health agencies in determining appropriate courses of action to promote healthy diets among children and their families.

LP0990923 Prof SB Powles; Dr KW Dixon

Approved Project Title **Mechanisms and manipulation of seed dormancy maintenance in annual ryegrass and other weed species**

2009 : \$ 39,000
2010 : \$ 78,000
2011 : \$ 78,000
2012 : \$ 39,000

Primary RFCD 2704 BOTANY

Collaborating/Partner Organisation(s)

Botanic Gardens and Parks Authority

Administering Organisation The University of Western Australia

Project Summary

A better understanding of seed dormancy in annual ryegrass will lead to a greater variety of management options for removal of this weed from cropping zones, focusing on diminishing the weed seed bank. Additionally, the knowledge gained from the study of ryegrass could be applied to native species in terms of optimising germination of difficult species and conservation of seeds of rare species.

LP0991834 Dr E Tohver; Prof PA Cawood; Dr GE Batt; Dr F Jourdan; Dr H Zwingmann; Dr NJ Evans; Dr BI McInnes; Mr J Vermeulen

Approved Project Title **A multidisciplinary study of the Karoo Basin: chronology of a mass extinction, configuration of a supercontinent**

2009 : \$ 85,000
2010 : \$ 170,000
2011 : \$ 170,000
2012 : \$ 85,000

Primary RFCD 2602 GEOPHYSICS

APA(I) Award(s): 1

Collaborating/Partner Organisation(s)

Chevron Australia Pty. Ltd.

Administering Organisation The University of Western Australia

Project Summary

Development plans for Australia's North-West (NW) shelf will expand the existing supply of natural gas and help manage greenhouse gas emissions through an innovative carbon sequestration project. A better understanding of well-exposed geology of the Karoo Basin will help evaluate the submarine deposits of Australia's NW shelf, essential for both improving yield from the new Gorgon gas fields and understanding subterranean reservoir capabilities for carbon dioxide injection. This study will also improve our scientific understanding of the timing and mechanisms of the end-Paleozoic mass extinction, the most significant event in the history of life on Earth.