

Sustainable Farming Fund 2017/18 Funding Round – List of successful projects

Project number	Project title	Applicant group	Total amount of SFF funding requested	Project summary
405195	Classical biological control for Vespula wasps - Phase II	Vespula Biocontrol Action Group (V-BAG)	\$459,045	Vespula wasps are a serious invasive pest throughout New Zealand, causing direct economic losses and putting labourers at risk in various primary sectors. Biocontrol can offer a sustainable large-scale long-term control solution to complement current and future methods. This project will explore the potential of natural enemies, import the proposed parasitic flies, test their safety, apply to the EPA for release approvals and if approved, make initial releases. Foresters, winegrowers, beekeepers, DOC and others will benefit.
405275	Greenshell Mussel Seed Security	Coromandel Marine Farmers' Association	\$161,000	The Greenshell mussel aquaculture industry has grown to a \$300M p.a. mostly export industry. Current production and further growth is constrained by difficulties with retaining seed mussels on farms. This project will firstly isolate the root causes of loss of mussel seed, and then use this knowledge to design and test practical solutions. The project is led by Greenshell farmers in the Hauraki Gulf who account for 40% of total production, and results will be shared nationally. The development of successful methods for retaining seed mussels has the potential to save the industry \$20-40m a year in direct costs associated with seed loss, and provide the basis for increased production to over \$350m a year within the next 5 years.
405237	Sustainable management of guava moth	New Zealand Feijoa Association	\$289,615	Guava moth (GM) seriously affects feijoa and macadamia production in New Zealand, and has also been found infesting backyard citrus, stonefruit and pipfruit. There is currently no reliable management system in place for GM. This project will develop a suite of grower-based management practices to manage GM populations in commercial feijoa and macadamia orchards and home gardens. This work is essential to ensure growers have access to information and technologies that result in improved pest management control, and maintenance of these measures for sustainable production of high quality fruit with minimal agrichemical inputs.
405335	Improving the quality of seed potatoes using precision agriculture.	Potatoes New Zealand	\$252,400	The New Zealand potato industry uses seed potatoes produced by specialist seed potato growers. These growers aim to minimise the chance for disease transfer in infected potato seed tubers through reapplication of desiccants to prevent re-greening in potato seed crops to reduce disease incidence and by inspecting and rouging crops to reduce virus. This project aims to address these issues and will use precision agriculture technologies to detect disease and apply treatments only to the affected areas, thereby reducing disease incidence and increasing crop yields.
405324	Improved facial eczema management on New Zealand dairy farms	Facial Eczema action group	\$395,620	The project aims to deliver improved prevention of facial eczema by dairy farmers through providing evidence of the production cost and welfare implications of this disease when it is sub-clinical, and thereby providing the necessary value proposition for change. Ultimately a better managed facial eczema programme will impact the welfare, productivity and sustainability of national pastoral farming operations.
405327	Development of farmer-led regional Sustainable Health Groups	Sustainable Health Group development project	\$485,580	This project aims to develop farmer-led groups to initiate and drive change with regard to antimicrobial use and an improvement in disease management on farms. In particular, to drive change with regard to reducing and refining antimicrobial use; and the prevention, detection and treatment of disease. Four farmer-led Sustainable Health Groups will be established across Southland and Otago, with the prime role of reducing and rationalising antimicrobial use in the regions across all sectors. If successful, antimicrobial use will be measurably and sustainably reduced on enrolled farms, and it is hoped that this model could be applied in other regions.
405254	Preventing the impacts and costs of wallaby range expansion	Waitaki Wallaby Liaison Group	\$329,500	Two species of wallabies in New Zealand are well established, in high numbers, and spreading rapidly. Improved detection methods are needed urgently to help curb the spread of wallabies and other pests, especially animals at low densities spreading at the edge of their range. This project will determine the best method for detecting wallabies from a range of ground-based and aerial surveillance methods including innovative thermal imaging cameras. The resulting improved survey methods will enable farmers, councils, DOC, and LINZ staff to more cost-effectively detect and manage wallaby populations, and prevent significant losses to production and the environment.
405302	Farmer Driven Catchment Management in Southland	NZ Landcare Trust	\$190,260	This project builds on previous work undertaken to assist farmers to establish catchment groups to identify their local issues and implement good management practice to improve water quality in Southland. The project will provide regional coordination and support landowners to develop catchment groups to foster identification and understanding of issues relative to each catchment area. Good management practices can then be implemented to meet new rules, provide constructive input into establishing catchment limits, share the knowledge, and to identify economic land use options for soils under the new physiographic framework.
405246	Harnessing the power of biocontrol to overcome horehound, the Achilles Heel of lucerne in dryland sheep farming	Horehound Biocontrol Group	\$285,450	The unpalatable shrub horehound is becoming a serious weed, especially in dryland lucerne pastures. Chemical control is not economic as the problem worsens following treatment. The chemicals also kill the lucerne, leaving erosion-prone bare soil, and their prolonged residual effect is advantageous to horehound since it is the first plant to come back. Using the successful horehound biocontrol programme developed in Australia in the 1990s, we will explore the feasibility of horehound biocontrol in New Zealand.
405292	SMART Tools and Tips for Irrigators	Irrigation New Zealand Incorporated	\$294,400	Irrigation Good Management Practice is the new 'norm' for irrigators. Its widespread implementation has production, profitability and environmental benefits. This project will explore and collate current and future barriers and benefits to its uptake. It will then identify strategies to successfully overcome and take advantage of these and pilot their implementation. The project is based upon a community based social marketing approach to behaviour-change, and adopts a co-development approach with the irrigator groups. The project will also diversify existing knowledge and training opportunities for irrigators.

405267	Biosecurity - the farm border	Seed and Grain Crop Readiness and Response	\$90,600	Effective biosecurity is needed at three levels in New Zealand. The national border is predominantly managed by government and a wide range of risk assessments, procedures, plans and response plans are in effect. The regional border is managed by regional councils who have identified key risks and responses. The third level is the farm boundary, and the levels of risk assessment, planning, preparedness and procedures vary markedly between farms. In the cropping industry effective biosecurity will often rely on the ability of individual farms to detect and respond to biosecurity threats on their farms. This project will provide a Farm Biosecurity Plan with modules that can be readily adapted to suit individual farm businesses; provide options for farmers to manage farm biosecurity in relation to farm businesses; identify links to regional and national biosecurity programmes; and identify the key biosecurity risks to cropping farms.
405319	A collaborative industry approach to reduce the threat of PAs in honey Phase 2: Risk modelling and mitigation in the supply chain	Apiculture New Zealand	\$490,940	The presence of pyrrolizidine alkaloids (PAs) in honey represents a food safety and market access threat. PAs are known to have toxic and long term negative effects in humans and animals, and many plants containing PAs are widespread in NZ and with an expanding distribution. There is now an increasing international focus on PAs and food safety. Building on a previous project, this project will identify mitigation strategies and a potential testing regime that is appropriate for the industry to continue to grow its international presence and position. A proactive response and industry self-regulation will ensure that NZ honey is positioned to meet any future national and international regulations related to PAs and that market access is not limited, and that the public perception of NZ honey continues to be 'honey is healthy for you'.
405264	Pasture management in a volatile world	Beef+LambNZ Mid-Northern North Island Farmer Council	\$516,000	Sheep and beef farmers are facing ever increasing climatic, economic and environmental challenges that make it difficult to be economically and environmentally sustainable. Using a developed pasture management system and time-lapse drone footage, this project will figure out the triggers for and impact of management decisions on pasture production, quality and composition, profit, and key environmental factors (such as organic matter content, soil structure, erosion potential and soil biology).
405328	Wilding conifer control and beyond	New Zealand Wilding Conifer Management Group	\$322,767	New Zealand is embarking on a large scale wilding conifer control programme under the National Wilding Conifer Management Strategy. Over the next decade, broadcast aerial control with high rates and total quantities of herbicide mixtures will be part of control operations. However, there is limited knowledge on the persistence of these herbicides in treated environments and their impact on vegetation succession, soil and water quality in the long-term. This project will quantify the persistence of these herbicides and their impact on vegetation succession, and will evaluate methods to facilitate restoration to conservation or productive land.
405276	Sector Leadership & Capability Development for Targeted Women's Groups	Agri-Women's Development Trust (AWDT)	\$289,200	The project will research, design and deliver pilot programmes that develop women leaders in three target groups: young women who are entering agri-sector careers; Maori women in regional communities who have the potential to create and support self-sustaining enterprises that meet cultural, economic, environmental and community objectives; and women with careers outside agriculture and whose expertise we want to capture for the sector. The women will be better able to lead their agricultural businesses and rural communities by learning to engage with markets and stakeholders at local, regional, national and global levels, and by better telling the stories of their sector and of themselves to a largely digital and urban-centric world.
405350	Building capacity to eradicate bovine viral diarrhoea virus (BVD)	BVD Free New Zealand	\$584,540	Bovine viral diarrhoea virus (BVD) costs the New Zealand beef and dairy industries more than \$150 million annually. This project will collect field data on the epidemiology and economics of BVD in beef herds. This data will be used to build a national BVD simulation model capable of tracking the disease status of individual animals and herds over time to compare the cost-effectiveness of the current voluntary approach to BVD control against coordinated national eradication programmes.
405301	Ka Matau ka Ora (People and Capability) - An ecosystem for workforce and governance development for Maori kiwifruit orchardists	Tuhono Whenua Horticulture Ltd	\$402,800	Maori governance capability and Maori management workforce capability are two key limiting factors impacting Maori owned kiwifruit trusts who aim to increase production and profitability. This project will provide a tailored system of learning, and knowledge transfer and transformation that will improve management capability on orchard, improve governance capability, and improve on-orchard performance. It will proactively synthesise into a Maori eco-system of kiwifruit orchard practice that is based on principles of whanaunga by way of collective approaches to change, teamed with a drive to connect more closely with an integrated framework of industry led and informed orchard practices.
405187	Giant buttercup management decision support	Giant Buttercup Management Group	\$327,000	This project will provide knowledge and tools that will enable dairy farmers to design and implement long-term cost-effective programmes to manage the weed giant buttercup on their farms. It will determine the optimum management methods for the weed and develop a giant buttercup management decision support system for farmers and a model for determining economic impacts.
405305	The Effect of Medium to Long-term Irrigation on Soil Water Holding Properties	Federated Farmers of New Zealand Inc.	\$295,950	The experience of many farmers has led them to believe that irrigation improves soil and increases its water holding capacity. This project will increase knowledge about the impacts of irrigation on soil organic carbon and soil water holding capacity. This will assist both farmers and regional councils by enabling more effective and efficient use of irrigation water, reduced drainage and reduced loss of soluble nutrients.
405322	Biological control of Field Horsetail - rearing and distribution of a new agent Grypus equiseti	Rangitikei Horsetail Group	\$174,420	Field Horsetail, a fern-like plant native to North America and Eurasia, has become a serious invasive pest of pasture, crop and riparian areas in wetter regions of New Zealand. Traditional control measures are costly and are failing to control or reduce the spread of this weed. Biocontrol offers a cost-effective and enduring solution. A previous SFF project resulted in a successful application to the Environmental Protection Authority to release the Horsetail Weevil as a biocontrol agent for field horsetail. This proposal seeks funds to allow weevils to be mass-reared and released throughout infested areas and involving the community in this process. Data will be collected at release sites to allow future impact of the weevils to be evaluated.