

SFF Projects funded 2016-2017

Project Title	Applicant Group	Amount Awarded	Project Summary
Optimising pollination of Gold3 kiwifruit under hail netting	Group on the sustainable pollination practices in kiwifruit under hail netting	\$ 598,310.01	By 2020 Gold3 volumes should double to \$2 billion, so any identified solutions will deliver considerable benefits to the kiwifruit industry and NZ economy. The research outputs will benefit kiwifruit growers and pollination beekeepers; providing cost-effective pollination options for netted orchards which do not create bee health issues. The knowledge generated may assist other horticultural industries.
Lucerne grazed by stock	Taupo Lake Care Inc.	\$ 216,680.00	The objective is to obtain data on the amount of nitrogen leaching under lucerne grazed by stock. This data will be given to the Overseer® Committee for inclusion into the Overseer® model. Currently values of nitrogen leaching from lucerne are poorly constrained. All farmers grazing, or considering grazing lucerne will benefit from the research via the Overseer model, especially those in the Taupō catchment where nitrogen discharge allowances are in place.
Release Strategy for Improved RHDV Strains To Maximise the Benefits of Rabbit Biocontrol	Waikari Pest Management Liaison Committee (Chairman: Harry Pawsey)	\$ 240,000.00	The Australians have identified a new high virulence RHDV strain (called K5) that partially overcomes resistance to RHDV and is expected to increase rabbit kills by 20-30%. Approval to release RHDV K5 in Australia has been applied for and should be granted within the next 12 months. Rabbit stakeholder groups in New Zealand are planning to seek approval for the release of RHDV K5 into New Zealand. The proposed project will provide New Zealand stakeholders and landowners with new information and guidelines that will ensure the timing and method of release adopted for the improved RHDV strain achieves the best possible outcomes and maximises future long term benefits to farmers.
Drenching ewes with ML's at lambing - accounting for the unintended consequences	Farmers Concerned About Sustainable Parasite Management	\$ 443,450.00	This study aims to test this hypothesis by determining both ewe and lamb survival when ewes are either not treated or are treated with long-acting ML drench products prior to lambing. The study will be conducted on at least 5 sheep farms in the North island over two years giving a total of 10 trials (equivalent to 4,000 ewes enrolled in the study).
Resource development for new entrant deer farmers	"Motivate Group" Training and personal development project.(Deer Industry New Zealand and the NZ Deer Farmers Association	\$ 30,000.00	The Industry, through the "Motivate" and Next Generation initiatives will continue to promote wider interest in formal and informal skills generation and knowledge assessed through gaining relevant formal qualifications and add this key new skills dimension to deer farm staff and the succeeding generations to aid, from grass roots, the industry's current and critical productivity improvement drive.
Agronomic Solutions for Fodder Beet	Fodder Beet Agronomy Group	\$ 397,521.00	This project will provide overdue on-farm research and extension to enable NZ farmers to produce more reliable and better yielding fodder beet crops, leading to higher whole-farm profitability within acceptable environmental limits.

			Note: This project will trial local seeds in different growing conditions and locations. Prior to finalising a grant agreement, the Investment Programmes team will liaise with the Operations Branch to ensure the current velvet grass response is not jeopardised by this project.
Developing Powdery Mildew Best Practise in New Zealand Vineyards	New Zealand Winegrowers	\$ 335,000.00	This project will address the need for additional management guidance and enhanced extension to deliver powdery mildew 'best practice' to the New Zealand winegrowing industry. Powdery mildew pressure has increased substantially over the last few growing seasons, largely due to poor management practices coupled with conducive environmental conditions. We aim to address this with a combined research and extension programme designed to demonstrate best practice where it counts – in our members' vineyards.
Strategic Bee Plantations for Pollination and Honey	Bee Friendly Farming Group	\$ 339,803.94	The primary objective and outcome of this project is to support the development of the wider agricultural sector to achieve sustainability and growth targets, through increased honey and related medical product exports, and by improved pasture, horticulture and arable crop pollination helping drive growth. This will be achieved by having healthy and thriving bee populations through focussed research on floral pollen and nectar sources that meet bee nutrition requirements at the right time and in sufficient quantity, and strategic bee plantations that enable apiarists, farmers and landowners to ensure year-round bee feed supplies.
Nitrogen: Measure It and Manage It	Foundation for Arable Research (FAR)	\$ 302,119.00	This project will develop a simple and adoptable Quick Test Mass Balance field guide that steps farmers through the process of deciding whether or not to apply nitrogen to their crops.
Reducing use of antimicrobials when managing mastitis	National Mastitis Advisory Committee	\$ 598,680.00	Without support, the dairy industry stands to lose \$120 million per annum in increased costs, culling and milk production losses if a mandatory ban on preventative treatment were imposed. This project will provide robust, prudent and defensible treatment protocols that enable dairy farmers and their advisers to transition successfully to non-antibiotic alternatives, and enable the dairy industry to meet obligations to reduce antimicrobial use. Supported by proven adoption pathways, this programme will facilitate rapid change.
Managing BYDV in cereals sustainably	Foundation for Arable Research	\$ 166,925.00	This project will deliver improved BYDV management strategies to cropping farmers to enable them to minimise BYDV damage to cereal crops. This will be achieved by studying; at which growth stage the wheat plant becomes tolerant to aphid transmitted BYDV, cultivar BYDV tolerance differences and the persistence of commonly used foliar and seed treatment aphicides.
Improved control of tomato potato psyllid with the psyllid parasitoid Tamarixia triozae	Horticulture New Zealand	\$ 126,010.00	This project will identify effective release strategies of <i>T. triozae</i> in New Zealand using a series of pilot releases adjacent to field crops (potatoes). Multiple releases will then be made around the country to ensure the establishment of <i>T. triozae</i> in New Zealand horticultural environments. The project will evaluate the establishment of <i>T. triozae</i> as a Biological Control

			Agent (BCA) of TPP in these horticultural environments through post-release monitoring. Information gathered on <i>T. triozae</i> distribution, survival and parasitism rates from these pilot releases will be used to assist growers from all industries to integrate <i>T. triozae</i> into each of their pest management programmes.
Validating and extending European canker best management practices to all Pipfruit regions	Pipfruit New Zealand Inc.	\$ 496,320.00	This project aims to roll out the European canker management expertise from the Nelson area across all Pipfruit growing regions. As part of the extension, regional specific problems will be addressed such as the impact of overhead irrigation on disease risk in Central Otago and avoiding the introduction of the pathogen into disease free areas in Hawke's Bay via nursery stock when planting. At the heart of the project is the validation of the European Canker Best Practice Guidelines (EC-BPG) across other Pipfruit growing regions
Managing Pathogen Resistance in Summerfruit	Summerfruit New Zealand and Partners	\$ 496,059.08	The project will develop a suite of grower-based management practices to slow down the development of resistant sub-populations emerging in these key fungal and bacterial pathogens and will focus on cherry in Central Otago, and nectarine, peach, and plum in Hawke's Bay
Understanding and managing grain storage pests	Foundation for Arable Research (FAR)	\$ 162,480.00	No new information on grain storage, storage pest incidence, sustainable management of storage pests and stored grain sample management has been collated or distributed to grain store operators since 1997. Internationally there have been significant changes in storage pest species and populations, the effectiveness of control practices due to insecticide resistance and stored grain management. It is essential to ensure continuity of supply of high quality food and feed grain that the current status is clearly defined and a future strategy developed.
Innovative solutions to managing lowland farm drainage and run off to reduce nutrient loss and enhance biodiversity	South Wairarapa Fresh Start Farmers	\$ 163,985.00	A key outcome of the project will be that on-farm monitoring systems will highlight sustainable land use practices. These practices will take landowners beyond compliance requirements and will result in an informed connection between landowners, governing bodies and markets. This will help drive behavioural change and inform regional policy so that local tailored innovative solutions can be recognised as an alternative to minimum compliance standards. Our goals are to foster innovation, reduce compliance costs and improve the efficiency of expenditure on environmental outcomes. We see opportunities for landowners to adopt a longer term, innovative processes.
Increasing the Market Share for New Zealand Olive Oil	Olives New Zealand Incorporated	\$ 35,660.00	The proposed project is to increase the market share for New Zealand produced olive oil by identifying basic grove management practices to enable the industry to consistently lift the productivity of fruit per hectare and thus also reduce costs. This will allow the New Zealand industry to compete effectively with imported olive oils to increase market share.

Nassella tussock: feasibility of biocontrol	Nassella Tussock Biocontrol Consortium	\$ 60,000.00	The project will work on Nassella tussock mitigation techniques. It will investigate the potential of the three fungi in particular, and pathogens in general, as biocontrol agents for Nassella tussock. The project will provide a 'value proposition' for the biological control of Nassella tussock in NZ for consideration by affected land holders.
Northland's Diversified Forage Production	Northland's Legume & Forage Group	\$ 483,297.00	Our major aim is to increase the range of forage solutions available to the Northland farmer. By improving our on-farm forage diversity we will be assisting the improvement in farm resilience.
Mating disruption as a management tool for leafrollers in avocados	New Zealand Avocado Growers Association	\$ 591,604.97	The practical outputs from this project will help to eliminate the use of organophosphate based insecticides and other broad spectrum insecticides within the avocado industry, better enabling the goals of the industries pest and disease management strategy. The avocado industry currently has limited options for leaf roller control and some growers are still reliant on insecticides under increasing EPA controls, e.g. Chlorpyrifos. The community of interest will be encouraged to be actively involved in the project where possible, and information will be disseminated to the wider community through a variety of extension tools and methods.
Decision Support for Crop Load Management of Pip Fruit Trees	Pipfruit New Zealand Inc	\$ 366,262.00	Substantial productivity increases for NZ's growers will be achieved by successfully managing key yield components, e.g., buds, flowers, fruitlets and fruit. Estimates of the maximum carrying capacity of apple trees are very subjective, with a high margin of error, leading to lower than potential yields and poor economic performance.
The P Project Advancing on-farm phosphorus loss mitigation in conjunction with applied research on a new mitigation tool the Detainment Bund	The P Project - Catchment Farmers	\$ 209,318.00	This project is about being able to manage phosphorus transport to waterways in an efficient and cost-effective way. This will be vitally important with the upcoming National Policy Statement for Freshwater Management (2014) when farming communities endeavour to maintain or improve freshwater management units across New Zealand. Phosphorus is vital for a sustainable farm; however, it is also a key ingredient contributing to water quality issues. This project aims to contribute to sustainable farming in NZ by balancing the interface between profitable pastoral farming and downstream water quality. The contribution of a new and practical P mitigation tool (the DB) is significant.
Are there long term advantages in giving probiotic supplements to neo-natal calves?	Clutha Agricultural Development Board	\$ 7,000.00	This project is a follow up to SFF project L12-083 – "The effects of a probiotic supplement on growth, feed conversion and general health of dairy calves." This was a trial of approx. 300 calves with 10 replications over three farms in the spring of 2012. Half the calves were fed a fresh probiotic supplement and half were a control group. Our project aims to go back to these trial farms and collect relevant data relating to weight, milk yield, mortality and general health. The data will relate to 3 and 4 years after their trial situation, and although we will not aim to prove causal effects, this follow up project will at least give scientists some indications that may prove worthy of further investigations. Will milk yields, mortality rates and general health of the group of calves given a neo-natal fresh probiotic be significantly different to the control group of calves?

Redwood Stability Across the Environment. An Emerging Opportunity	Sequoia Action Group (SAG)	\$ 24,000.84	This project is to analyse and report on growth data collected in the Kuser trials which will help growers understand if: 1. they need to worry about clones growing very differently in different environments; 2. they will be able to identify environments that have changes in clonal growth and; 3. tree breeders and clonal producers will make more rapid gain by selecting more clones from the best natural regions identified in the analysis.
Utilisation of Nutrients from Effluent Ponds , Sale Yards & Haulage Ponds	Clean Waters to the Sea Tokarau Moana Charitable Trust	\$ 22,300.00	The project aims to investigate, trial and implement, a feasible low cost working solution to the treatment and management of farm effluent, sale yards effluent and animal haulage effluent that can be adapted and utilised by small and large operations and businesses alike.
		\$ 6,912,785.84	

