Outcome Logic for PGP Ravensdown Programme 2013 – 2020 version 16 July 2014

Long term outcomes 2031 -

> Medium term outcomes

2024 - 2030

Increased New Zealand economic performance driven by a highly productive and environmentally sustainable meat and wool sector



Productivity and profitability gains for hill and high country meat and wool farmers using precision fertiliser application technology

Reduced adverse environmental impact from hill and high country farming in NZ



Increased adoption of precision fertiliser application system across the hill and high country farming sector

If the activities are successful ...



Short term outcomes 2016 - 2023

Activities &

Productivity gains on focus farms adopting precision fertiliser application technology

Reduced adverse environmental impacts from fertiliser use on focus farms

Uptake of precision fertiliser application system by early adopters

Increased efficiency of fertiliser use on farms using precision fertiliser application system



Feasibility of precision fertiliser application system tested and demonstrated on focus farms Farm advisers are skilled in utilisation of precision fertiliser application system

Outputs Development of aerial 2013 - 2020fertiliser application technology

Optimisation of localised nutrient application, integrated with farm management practices

Development and validation of soil nutrient remote

Enhanced extension capability

Enablers & Inputs

Complementary components of nutrient management developed by Ravensdown

Advances in technologies such as remote sensing

Collaborations with other PGP programmes

sensing capability

Co-investment under PGP

Additional benefits

for the sector and New Zealand

Increased resilience to climate change in hill and high country country farming

Economic sustainability for hill and high country farming communities

Potential export revenue and reputational benefit to NZ from licensing of precision fertiliser application technology internationally

Potential benefits of precision technology for low landfarming and other primary _ _ sectors _

Increased efficiency and safety in the aerial spreading industry

Problems & **Opportunities** Low profitability of high country farms

Fertiliser is a major farm production driver and accounts for 20% of operating costs

Expectation of increasing environmental regulation

Precision application increases efficiency of fertiliser use

Intensive measurement of soil nutrient status in hill country farms is time consuming and expensive.