

Ravensdown PGP Programme Quarterly Progress Report

Contract reporting period: April - June 2016

PSG Meeting Date: 20/07/16

Prepared by: Mike White Technical Development Manager

Updated: 3 August 2016

Printed: 3 August 2016

Summary of progress during this quarter

Quarter 4 of the 2015/16 year involved completing autumn sampling across three research farms in the programme. These farms are located in the Wairarapa, Nelson and Canterbury regions. Sampling on a fourth research farm located in Otago had to be postponed due to dry autumn conditions. Research farms provide the baseline data to develop remote sensing calibrations. The programme now has eight research farms representing a range of geographical areas across New Zealand.

To date approximately 7,165 soil and 6,935 plant tissues plant tissue samples have been collected. This represents the most comprehensive dataset taken in New Zealand for the purpose of developing remote sensing technology to improve the identification of nutrient requirements across NZ hill country. Results relating pasture nutrient levels to sensing data continue to suggest very robust algorithms are achievable. The relationships with underlying soil fertility is now the current focus of the programme.

Two new South Island focus farms are entering the programme for the 2016/17 season, they are Moana in Waikouaiti and Bog Roy Station in North Otago. The programme now has four focus farms with, Patitapu in the Wairarapa and Ohorea Station near Raetihi joining at the beginning of the 2015/16 season. The focus farm's purpose are to trial and refine tools that are developed as part of the PGP programme. Planning is currently underway to continue workshops throughout the country with the aim of increasing farmer and industry group's awareness and understanding of the value proposition for adopting new precision fertiliser application technology.

Ravensdown continues to see an increasing uptake of its generation two aerial spread technology, Intellispread™ enabling more precise aerial fertiliser applications to hill country. This is a closely aligned programme which has been developed by Ravensdown and not funded by the PGP programme. The system enables a prescription map to be loaded into the aircraft and the map drives the opening of the planes hopper with the aim to deliver the prescribed amount of nutrients to different parts of the farm. These aircraft will again be employed on focus farms during the 2016/17.

Key highlights and achievements

- Completion of the autumn data collection
- Addition of two new focus farms to the programme.

Upcoming

- Planning for the first sampling event aimed to validate (test) remote sensing algorithms.

Investment

<i>Investment period</i>	<i>Industry contribution</i>	<i>MPI contribution</i>	<i>Total investment</i>
<i>During this Quarter</i>	\$0.32m	\$0.32m	\$0.64m
<i>Programme To Date</i>	\$2.75m	\$2.75m	\$5.5m
