

Ravensdown PGP Programme Quarterly Progress Report

Contract reporting period: January - March 2017

PSG Meeting Date: 27/4/17

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Summary of progress during this quarter

The programme's first validation remote sensing survey was carried out on Patitapu Station in this quarter. The validation surveys are designed to test the robustness of early remote sensing calibrations to produce predictions of soil fertility remotely.

To date approximately 7,345 soil and 6,935 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 calibrations are achievable with the relationships with underlying soil fertility now the focus of the programme.

A technical review by international experts in the remote sensing and algorithm development area was completed during this quarter with the final report expected by April 2017. This report will support the programme's science advisory group on future recommendations for the programme. The review encompassed procedures around data collection, handling and statistical approaches employed to develop the algorithms. This technical review was conducted in conjunction with a broader review that was also commenced this quarter reviewing the programme's progress towards its desired outcomes.

A Beef & Lamb 'farming for profit' event was held at Patitapu Station in the Wairarapa on the 23/3/17 allowing the Pioneering to Precision programme to showcase the progress being made and also highlight recent variable rate fertiliser applications made to the property using the latest aerial application technology.

Key highlights and achievements

- Completion of first validation remote sensing survey on Patitapu Station.
- Completion of the technical review of the programme.
- Successful field day held at Patitapu Station in the Wairarapa.

Upcoming

- Completion of the second sampling event aimed to validate (test) remote sensing calibrations at Moana Station in Otago.
- Completion of a broader programme review.

Investment

<i>Investment period</i>	<i>Industry contribution</i>	<i>MPI contribution</i>	<i>Total investment</i>
<i>During this Quarter</i>	\$0.105m	\$0.105m	\$0.21m
<i>Programme To Date</i>	\$3.125m	\$3.125m	\$6.25m
