

# Ravensdown PGP Programme Quarterly Progress Report

Contract reporting period: July-September 2019

PSG Meeting Date: 30/10/19

Prepared by: Mike White, Technical Development Manager

Updated: 8 November 2019

Printed: 8 November 2019

---

## Summary of progress during this quarter

The spring 2019 validation remote sensing survey programme commenced during this quarter. The purpose of the validation surveys is to test the robustness of remote sensing soil fertility predictions against physical soil fertility tests. A further three validation surveys are planned during Spring 2019, adding to the 12 validation surveys already completed across the previous two years representing a strong test of the remote sensing predictions.

The programme is now concentrating on refinements and enhancements with the aim of ensuring that the technology is suitable to be offered as a commercial service from mid-2020.

The programme was successful during this quarter in securing Callaghan funding for two summer students positions which will be assisting the science team with fine tuning of vegetation classification ground truthing and analysis of parameters within the survey window for optimising estimation of soil fertility from remote sensing.

Fertiliser applications using leading edge variable rate equipped aircraft (Intellispread™) continues to grow with fertiliser applied using this technology applied to over 130,749 hectares of NZ hill country. This includes 5 variable rate nutrient applications using variable rate equipped aircraft based on fertiliser plans developed directly from hyperspectral remote sensing information. Using the Intellispread™ technology enables environmentally sensitive areas and ineffective zones across farms to be more accurately avoided during nutrient applications which to date has corresponded to savings of 20%.

## Key highlights and achievements

- Commencement of the spring 2019 validation survey programme
- Delivery of comprehensive technical documentation for the programme
- Approval by Callaghan Innovation for the funding of 2 summer students grants.

## Upcoming

- Completion of the Spring 2019 validation and focus farm survey programme
- Verification hyperspectral surveys completed on 3 focus farms following variable rate nutrient applications informed from earlier hyperspectral surveys.
- Review of the programme results up to December 2019 by the programmes science advisory group.

## Investment

<i>Investment period</i>	<i>Industry contribution</i>	<i>MPI contribution</i>	<i>Total investment</i>
<i>During this Quarter</i>	\$0.19m	\$0.19m	\$0.38m
<i>Programme To Date</i>	\$5.05m	\$4.96m	\$10.01m

---