



## Ruminant response to non-live probiotic microorganism extracts

*Masterton, 2008*

### Introduction

Donaghys RumenZyme Plus (RZP) is a non-live product from the fermentation of probiotic lactic acid bacteria and yeasts. It works by activating beneficial rumen microbes and promoting rumen development in order to improve microbial function and enhance digestion and feed conversion.

### Materials and Methods

The trial took place on a dryland commercial sheep farm in Masterton, Wairarapa. Lambs were weaned off hogget mothers on 17 December 2007. 210 white-faced mixed sex lambs were drafted into three groups on 20 December 2007. 70 lambs were given a 4 ml drench of RZCP and tagged with yellow eartags. The control group of 70 lambs were dosed with 4 ml of water and tagged with white eartags. 70 lambs were also dosed with ProLamb ProLamb, a non-commercialised product containing live lactic acid bacteria as well as the non-live fermentation products.

Lambs were weighed before drenching, three weeks after drenching (10 January 2008) and six weeks after drenching (31 January 2008) resulting in a trial length of 42 days. Data was collated and sorted in Microsoft Excel. An analysis of covariance (ANCOVA) with starting weight as covariate was performed in R statistical analysis program to test for the difference in means between flocks

### Results

Lambs treated with a single dose of RZP gained extra LW relative to control and ProLamb treated animals, however the increase was not statistically significant ( $P < 0.05$ ), (Table 1).

Table 1: LWG of lambs.

	Control	RZP	ProLamb	Difference (RZP-Control)
LWG (g/day)	94	97	10	3
95% CI for difference				$\pm 11$
P value				0.775

### Conclusions

These results support the hypothesis that a single dose of RZP will increase LWG in lambs post-weaning