



Ruminant response to non-live probiotic microorganism extracts

Milton, 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 was conducted on a dryland Southland sheep and beef property in the summer of 2007/2008. On 6 December 2007, 225 weaned white-faced ram lambs were selected for the trial and separated into three even groups. 75 lambs were given a 4 ml drench of RZP and tagged with yellow eartags. A control group of 75 lambs were dosed with 4 ml of water and tagged with white eartags. A further 75 lambs were dosed with ProLamb, a non-commercialised variation of RZP containing live microbes. These lambs were tagged with blue eartags. The lambs had already been given ProEwe, (a variation of RZP) at the end of October.

Lambs were weighed before drenching, three weeks after drenching (28 December) and six weeks after drenching (16 January). 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 this was not statistically significant ($P < 0.05$), (Table 1).

Table 1: LWG of lambs.

| | Control | RZP | ProLamb | Difference (RZP-Control) |
|------------------------------|---------|-----|---------|--------------------------|
| LWG (g/day) | 225 | 232 | 8 | 7 |
| 95% CI for difference | | | | ± 11 |
| P value | | | | 0.272 |

Conclusions

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