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Animal Nutrition

Lamb Monensin Trial, South Africa

Trial Report: 401

Summary

The potential for Rumibio to be used as an alternative to monensin was measured in a performance study through both complete replacement in the ration and also as a 50% monensin 50% RumiBio combination. There were no differences in animal performance between any of the groups.

Objective of the Trial	Evaluating the potential of RumiBio as an alternative for monensin in lambs
Location	South Africa
Trial Duration	3 Months (August 2020 – October 2020)
Number of Animals	84 (Monensin Positive Control (n=28), RumiBio (n=28), 50:50 Monensin/RumiBio (n=28)
Weight	Starting weight of 30kg (DLWG 0.25-0.35 kg/day)
Diet	*Ad lib* concentrate, complete feed, alfalfa, maize based ration and maize by-products
Summary of Results	• No significant difference between treatments and positive control on performance, intakes and carcass measurements • Intakes of RumiBio group less variable • No performance loss when using RumiBio instead of Monensin in sheep

Materials and Methods

Lambs with a starting average weight of 30kg were split into three groups, balanced for weight, and allocated to a monensin positive control group (n=28), a RumiBio group (n=28) or a 50% monensin 50% RumiBio group (n=28). The positive control group received monensin at a rate of 16.5 mg/kg of feed, the RumiBio group received RumiBio at 1g/head/day and the monensin/RumiBio group received a blend of both ingredients fed at 50% of the rate. Animals were fed a starter diet for the first seven days on trial, followed by a grower diet for 32 days and then a finisher diet for 21 days (see Table 1).

Table 1. Starter, grower and finisher diet composition and analysis

Composition (g/kg)	STARTER (7d)	GROWER (32d)	FINISHER (21d)
Hominy Chop	5.00	10.00	10.00
Maize meal	24.00	57.50	57.50
Hay	2.50	5.00	5.00
Alfalfa hay	50.00	0.00	0.00
Alfalfa	5.00	10.00	10.00
Molasses	8.00	8.00	8.00
Soybean meal	2.50	5.00	5.00
Oil	0.65	1.30	1.30
Urea	0.25	0.50	0.50
Limestone	0.50	1.00	1.00
Ammonium Chloride	0.30	0.60	0.60
Salt	0.25	0.50	0.50
AcidBuff	0.50	0.50	0.50
Premix	0.75	1.50	0.15
Zilmax	0.00	0.00	0.09
Diet characteristics			
Protein (%FM)	16.75	15.75	15.75
Fiber(%FM)	19.80	8.60	8.60
Starch + Sugar (%FM)	25.90	44.15	44.15
Fat (%FM)	5.15	7.70	7.70
Ash (%FM)	10.15	7.75	7.75
Ca (%FM)	1.84	1.25	1.25
P (%FM)	0.34	0.40	0.40
UFV (UF/kgFM)	0.95	1.13	1.13
PDIA (g/kgFM)	55.00	54.00	54.00
PDIE (g/kgFM)	101.00	106.00	106.00
PDIN-PDIE (g/kgFM)	8.00	0.00	0.00
DM4 (%FM)	41.20	44.20	44.20

Results

There was no significant difference in average daily gain (ADG) between any of the treatment groups as shown in Figure 1. There were no significant differences between intakes of the positive control, RumiBio and 50%

monensin 50% RumiBio treatments (1.62kg/d, 1.58kg/d, 1.59kg/d respectively) and there were no significant differences in FCR (5.45, 5.41, 5.40 respectively).

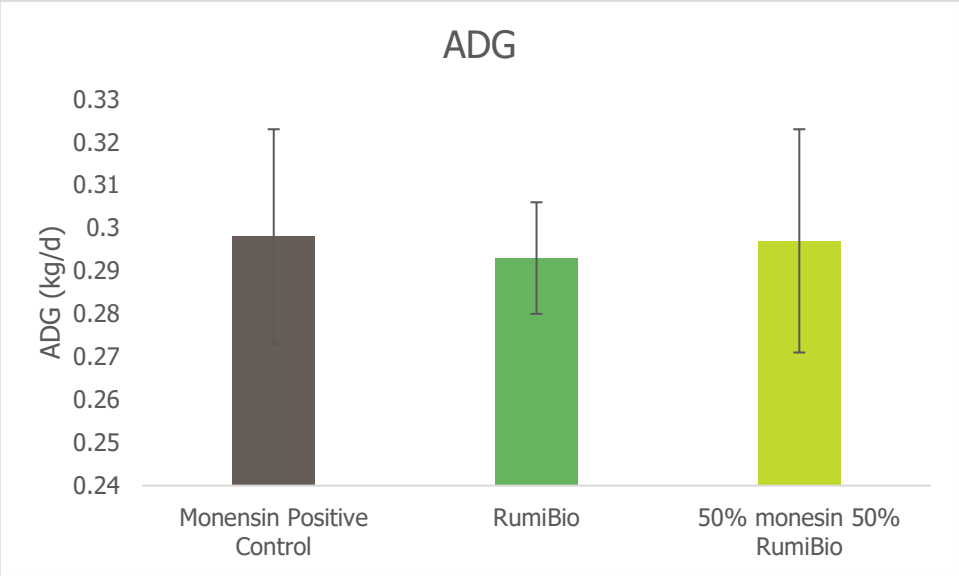

Figure 1. ADG between monensin positive control, RumiBio and 50% monensin 50% RumiBio treatments. No significant differences were observed between the three treatments.

Conclusion

There were no significant differences in animal performance measures when RumiBio was included as an alternative to monensin.