

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

HIGH LEVELS OF COPAIBA OIL IN FEEDLOT LAMBS DIET: PRODUCTIVE PERFORMANCE AND INGESTIVE BEHAVIOR

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The aim of this study was to evaluate the copaiba oil levels and monensin inclusion in lamb finished diet on productive performance and ingestive behavior. Sixty Crossed White Dorper lamb with 4 ± 1.2 months and average body weight (BW) of $22 \text{ kg} \pm 1.35$ were housed in individual pens, with ad libitum access to feed and water. The animals were allocated in five groups according treatments: 1) Monensin (MON $25 \text{ mg kg}^{-1} \text{ DM}$); 2) Control (CON); 3, 4 and 5) with inclusion of 0.5, 1.0, and $1.5 \text{ g kg}^{-1} \text{ DM}$ of copaiba oil respectively. The lambs were fed twice daily, at 0700 h and 1300 h, a chopped *Cynodon* spp. hay-based diet, with a 53:47 forage to concentrate ratio. Diets were offered for *ad libitum* intake. Dry matter intake (DMI) was measured daily by weighing of offered feed andorts, and nutrients intake. To measure the performance, the animals were weighed at the beginning of the experiment, each 14 days. Ingestive behavior was analyzed every 15 days, to register animal behavior throughout the day, a video-camera, recording for 24h device was installed in the barn. The behavioral categories used were: eating (E), leisure standing (LS), leisure lying (LL), ruminating standing (RS), ruminating lying (RL). Data were analyzed using polynomial regression by PROC MIXED SAS version 9.0. The positive control (MON) was compared with copaiba oil levels using LSMEANS and analyzed by Dunnett's test. There was no linear, quadratic or MON effect on final BW; however, lambs supplemented with 0.5 g kg^{-1} of copaiba oil had 260 g kg^{-1} increase in ADG ($P = 0.05$) compared with other oil treatments, and 230 g kg^{-1} increase compared with MON. In agreement with ADG data, there was a quadratic effect on feedlot days ($P = 0.04$), the level of $0.75 \text{ g kg}^{-1} \text{ DM}$ of oil inclusion decreased the time (days) in feedlot compared with others oil treatments and MON. There was a linear effect on time of eating, for every 1g of oil inclusion there was an increase of 29.56 minutes of time spent to ingestion. In addition, the MON inclusion decreased the time of eating compared with 0.5, 1, and 1.5 g of oil inclusion, with no difference at 0g of oil. There was also a linear effect on leisure lying and a quadratic effect on ruminating lying, according to the equation the optimum inclusion of copaiba oil is $0.7 \text{ g animal day}^{-1}$. The level of $0.75 \text{ g kg}^{-1} \text{ DM}$ of copaiba oil positively influenced the productive performance and the ingestive behavior of feedlot lambs

Keywords: antibiotics free, cerrado byproducts, functional oil, rumen modulator

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