

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## NUTRIENTS INTAKE IN LAMBS FED WITH YELLOW GREASE IN DIFFERENT FORAGE:CONCENTRATE RATIOS

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The inclusion of residual soybean frying oil in the ruminant diet is a good alternative to reduce environmental impacts as well as increase the energy density of the diet. The objective of this study was to evaluate the effects of the forage:concentrate ratios in diets with inclusion of yellow grease (residual soybean frying oil – YG) on the intake of dry matter and nutrients. For it, 24 male lambs non-castrated of the Santa Inês breed with the average age of 4 months and mean body weight initial of 22 kg ± 2 kg, were used. The animals were in the forage:concentrate ratios of 70:30, 55:45, 40:60 and 25:75. All diets contained 4% of yellow grease on total dry matter. Intake data of dry matter (DM); organic matter (OM distributed in a randomized block design with four treatments (diets containing 30%, 45%, 60% and 75% of concentrate) and six replications to evaluate intake. The experimental period lasted for 20 days, with 15 days for adaptation and five days for feed and leavings collection. The intake was calculated by the difference between the provided and leavings. The animals were kept in individual metabolic cages and fed twice daily with diets formulated); crude protein (CP); etheral extract (EE) and neutral detergent fiber (NDF) were undergo analysis of variance (ANOVA) and tested used polynomial regression at 5% probability. It was observed that the intake of dry matter (DM), organic matter (OM), crude protein (CP) and etheral extract (EE) by lambs increased linearly ( $P < 0.05$ ) as the proportion of concentrate increased with average values to DM of 0.853; 1.0367; 1.125 and 1.253 kg.animal<sup>-1</sup>.day<sup>-1</sup> ( $Y = 0.616 + 0.00859x$ ), to OM of 0.808; 0.988; 1.083 and 1.190 kg.animal<sup>-1</sup>.day<sup>-1</sup> ( $Y = 0.585 + 0.00827x$ ), to CP of 0.170; 0.202; 0.221 and 0.237 kg.animal<sup>-1</sup>.day<sup>-1</sup> ( $Y = 0.13075 + 0.00146x$ ) and to intake of EE 0.065; 0.077; 0.080 and 0.082 kg.animal<sup>-1</sup>.day<sup>-1</sup> ( $Y = 0.05717 + 0.00036x$ ), respectively to the proportion of concentrate (30; 45; 60 and 75%). The different forage:concentrate ratios have not showed statistical effect ( $P > 0.05$ ) to intake of neutral detergent fiber (NDF) with the average value of 0.422 kg.animal<sup>-1</sup>.day<sup>-1</sup>. Thus, it was concluded that the best forage:concentrate ratio in diets containing yellow grease for growing lambs was 25:75, because in this relation the nutrients intake was maximum, except NDF.

**Keywords:** animal, energy, lipids

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