

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

QUANTITATIVE VARIABLES OF CARCASSES OF OVINES UNDER DIETS INCORPORATING THREE TYPES OF OILS

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The use of vegetable oils in ruminant feed can have positive effects such as a reduction in the production of ruminal methane and increase in the efficiency of microbial synthesis. This research aimed to evaluate the quantitative characteristics of the carcass of lambs fed with different types of oil. The experiment was conducted in 2016 and was approved by the Committee of Ethics in Animal Experimentation of the Federal Rural University of Amazonia, with protocol 005/2013. Thirty males, uncastrated, crossbred (Santa Inês × Dorper) lambs with initial mean body mass of 21 ± 3 kg were used, distributed in random blocks with three treatments and ten repetitions per treatment. The treatments were the following experimental diets: T1, soybean oil *in natura*; T2, soybean oil after frying; and T3, palm oil (*Elaeis guineensis*). The oils were incorporated at 4% to the diet formulated at roughage:concentrate ratio being 40:60, consisting of silage made from elephant grass (*Pennisetum purpureum*, Schum.) and ground corn, bran from soybeans and wheat, calcitic limestone, and urea. The animals were fed at 8:00 a.m. and 4:00 p.m.. The experiment lasted eighty days. The carcasses were evaluated by their hot (HCY) and cold (CCY) yield, cooling weight loss (CWL), and proportion of tissue composition. They were weighed to obtain hot carcass weight (HCW) and cold carcass weight (CCW), the tissue composition was performed by dissection using the loin of the left half carcass. The data were submitted to analysis of variance and the averages of the variables were compared using a Tukey's test at 0.05 of probability utilizing the software SAS (2008). The addition of different types of oil to the diet did not alter any of the evaluated characteristics ($p > 0.05$). The mean values (kg) of HCW and CCW for T1, T2 and T3 were 20.37, 20.51, 20.63 and 19.67, 19.84, 19.82, respectively, the mean values (%) for T1, T2 and T3 were 48.81, 48.73, 48.09 (HCY), 47.14, 47.12, 46.21 (CCY) and 3.42, 3.29, 4.22 (CWL). In proportion of tissue composition, the mean values of muscle for T1, T2 and T3 were 60.05, 57.77, 58.85, respectively, for bone were 22.45, 24.70, 22.91 and for fat 17.49, 17.53 and 18.24. In this context, any of these oils can be used as supplement to diet. For environmental, social and economic reasons, it was concluded that residual soybean oil from frying is a viable alternative for the diet of lambs.

Keywords: carcass yield, lipid diets, residual soybean oil, sheep nutrition

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