

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

EFFECT OF LIPID SUPPLEMENTATION ON MILK PRODUCTION AND PHYSICOCHEMICAL COMPOSITION IN NATIVE DAIRY GOATS

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The objective was to evaluate the impact of lipid supplementation on milk production and composition in native dairy goats. Four females in the final phase of lactation (47.10 ± 5.86 kg initial body weight (BW) and average milk production of 0.878 ± 0.17 kg d⁻¹) were assigned to each of four treatments distributed in a Latin Square design 4 x 4. Each experimental period was 15 days, which 10 days of adaptation to experimental diets followed by five days of measurements and sampling. The total experimental period was 60 days. The experimental treatments consisted of a control diet (CON) without supplemental lipids and three other diets with different lipid supplements: oil (OI) consisting of 60% castor and 40% sunflower oil, cashew nut meal (CNM) and coconut meal (COCO). Milk production was registered at every milking. Milk samples were collected daily (250 mL of the total volume) obtaining four composite samples corresponding to day 11, 12, and 13, and to day 14 and 15 of each experimental period. The milk was analyzed for fat (MF), protein (MP), lactose (ML), total solids (MTS), defatted dry extract (MDDE), pH, acidity (MA), density (MD) and cryoscopic rate (MCR). The lipid sources had no effect ($P>0.05$) on the MP, MF, ML, MCR, MD, MA, MDDE, pH, MTS and milk production also had no significant effect ($P>0.05$), even corrected for 4% of fat. The mean value for milk production was 0.88 ± 0.05 kg day⁻¹ and the mean values of its contents of fat, protein and lactose were 41.52 ± 1.04 , 39.83 ± 3.19 and 48.31 ± 4.21 g day⁻¹, respectively. In our study, the lipid sources did not influence the milk production and physicochemical composition in native dairy goats.

Keywords: castor oil, lipid sources, milk composition

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