REPLACEMENT OF GROUND CORN GRAIN WITH CITRUS PULP IN A VEGETABLE OIL SUPPLEMENTED DIET ON NUTRIENT INTAKES IN NATIVE GOATS.

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This study was carried out to evaluate the impact of the replacement of ground corn by dried citrus pulp in diets supplemented with 2% oil on the nutrient intake in dairy goats. Eight native goats (40.78 ± 5.14 kg initial body weight (BW) and early lactation) were used in a double 4 x 4 Latin square design. Each experimental period was 19 days, which 14 days of adaptation followed by five days of measurements and sampling. The total experimental period was 76 days. The experimental treatments consisted of four rations: control ration containing ground corn grain (CON), control ration supplemented oil (60% castor and 40% sunflower oil, GCO); ration with dehydrated citrus pulp (DCP) and ration with dehydrated citrus pulp supplemented with oil (CPO). Tifton-85 (Cynodon dactylon) hay was used as roughage in a 50:50 roughage:concentrate ratio. Rations was offered ad libitum, considering 20% of refusals, and intake was measured daily. Samples of rations and refusals were collected to determine of the dry matter (DM) intake, organic matter (OM), crude protein (CP), ether extract (EE), neutral detergent fiber corrected for ash and protein (NDFap), total carbohydrates (TC) and non-fiber carbohydrates (NFC). The animals supplemented with the GCO and CPO had higher value for the EE intake expressed in kg.day⁻¹, %BW and BW⁰.⁷⁵ (P<0.05). For the NFC intake, the animals supplemented with CPD ration had higher value, expressed in kg day⁻¹(P<0.05). There was no influence of the experimental diets (P>0.05) on the DM, OM, TC and NDFap intake expressed in kg.day⁻¹, %BW and BW⁰.⁷⁵. In our study, vegetable oil supplementation promotes an increase in EE intake in lactating goats. The replacement of corn with dehydrated citrus pulp promotes an increase in the non-fibrous carbohydrates intake. The association of the carbohydrate types with inclusion of oil in the diets does not influence the dry matter intake in native goats.

Keywords: lactation goats, lipid, nutrition, pectin