

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

REPLACEMENT OF GROUND CORN GRAIN WITH CITRUS PULP IN VEGETABLE OIL SUPPLEMENTED DIET ON THE NUTRIENTS DIGESTIBILITY IN NATIVE GOATS

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This study was carried out to evaluate the effect of the replacement of ground corn grain by dried citrus pulp in diets supplemented with 2% oil on the nutrients digestibility 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 (CPOM). Tifton-85 (*Cynodon dactylon*) hay was used as roughage in a 50:50 roughage:concentrate ratio. The digestibility trial was Carried out indirectly using indigestible neutral detergent fiber (iNDF) as to estimate feces dry matter excretion. Feces samples were collected from each animal during three consecutive days, every 19 days, at the following times: at 8:00 am on the first day, at 12:00 noon on the second day and at 4:00 pm on the third day. The amount of iNDF in the refusals, concentrate, hay and feces samples was obtained by *in situ* incubations over a 240 h period in the rumen of a cow, the bags with the incubation residues were washed in running water. Subsequently, the bags were boiled for one hour in a neutral detergent solution. The residues were weighed and considered as iNDF. The animals supplemented with the CPD ration had higher value for the digestibility dry matter, organic matter, total carbohydrates and non-fiber carbohydrates (P<0.05). The animals supplemented with the CPD ration reduced ether extract digestibility (P<0.05). The animals supplemented with the CPO ration had lower value for the neutral detergent fiber digestibility (P<0.05). There was no influence of the experimental diets (P>0.05) on the digestibility crude protein (means value 75.48 ± 1.17). In our research, the substitution of ground corn grain by citrus pulp associated to the inclusion of oil influences the digestibility of nutrients in native goats.

Keywords: lactating goats, lipid, nutrition, pectin

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