

APPARENT DIGESTIBILITY COEFFICIENTS AND INTAKE DRY MATTER CORN SILAGE WITH AND WITHOUT Bt GENE IN SHEEP¹

COEFICIENTES DE DIGESTIBILIDADE APARENTE E INGESTÃO DE MATÉRIA SECA DE SILAGEM DE MILHO COM E SEM O GENE *Bt* EM OVINOS¹

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Corn silage is the most important preserved food for ruminants. The transgenic corn was inserted into the genetic code *Bt* gene (*Bacillus thuringiensis*) that expresses a toxic protein to caterpillars pests of maize, reducing production costs. To evaluate the varieties of plant corn silage DKB and AG with or without the *Bt* gene on the voluntary intake of DM (g/day) and apparent digestibility coefficients (CDA) of nutrients in sheep, the experiment was conducted at the Institute of Animal Science Nova Odessa-SP. Were used 20 sheep and the experimental design was randomized blocks in scheme factorial type 2x2 (two varieties of plant corn to silage, with the presence or absence of *Bt* gene), with five animals per treatment. These animals were housed in metabolism cages, with collector and separator feces and urine for 21 days, comprising 8 days for diet adaptation and 7 days for determination of intake, followed by 6 days of collection of feces, to measure DMI (g/day), CDA DM, CP and NDF. Samples of feed offered, leftovers and feces were identified and placed in a circulating air oven maintained at 55°C to constant weight. The analyses were performed in Bromatological Analysis Laboratory of the Institute of Animal Science. To CTMS (g/day) was interaction effect ($p < 0.05$) than in the variety AG (779.36) was greater than DKB (637.52), because the DM content of the sheet AG (31.09) was superior to DKB (29.17). The AG (779.36) was higher than your counterpart isogenic without the gene (575.15) $p < 0.05$. The DKB without the gene (637.52) did not differ ($p > 0.05$) from your counterpart DKBBt with the gene (590.78). The lowest total DM intake in g/day was observed for varieties with *Bt* gene insertion (genetically modified organism - GMO) and a possible explanation is the higher value of NDF in the silages of variety with the *Bt* gene in relation to their isogenic counterparts without the gene. The CDA, DM and NDF no had interaction effect between varieties factors and GMO ($p > 0.05$) confirming the values found by several authors in studies with sheep fed to corn silage. The CDA of CP had an effect only for GMO ($p > 0.05$) in which the lowest result was observed for GMO (40.42) than their isogenic counterparts without the gene (47.58%), this because transgenic hybrids had lower CP content in the sheet ($p < 0.005$), with values of 12.15 for GMO and 13.04 to varieties without the gene, one possible explanation for this fact are the production of Cry1Ab protein by gene *Bt* in the plant, which would lead to a decrease in protein content of plant components.

Key words: animal consumption, digestibility, ruminants, transgenic corn silage