FRACTIONS OF DEGRABILITY *IN SITU* OF DRY MATTER IN SHEEP FED WITH SILAGE CORN WITH AND WITHOUT THE GENE Bt [1]

FRAÇÕES DA DEGRADABILIDADE IN SITU DA MS EM OVINOS ALIMENTADOS COM SILAGEM DE MILHO COM E SEM O GENE Bt [1]

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Silage corn is a food widely used, composing the bulk of feed for ruminants, because its present high nutritional value. Since the release by CNTBio seeds of modified genetically corn, many of it began to use transgenic silage corn, which was inserted into genetic code the Bt (Bacillus thuringiensis) gene that expresses a toxic protein to caterpillar pests of corn, so occurs the reduction of production costs and pesticide use. Due to rapid expansion of transgenic maize and your wide use in animal feed by producers, the aim of this study was to evaluate the degrability in situ in animal rumen, in order to estimate the nutritional value of silage corn with and without the Bt gene. The experiment was conducted at the Institute of Animal Science Nova Odessa-SP. Were used four rumen fistulated sheep housed in individual pens for 56 days, including four periods. The animals were fed with silage with two varieties of plant corn to silage - DKB and AG, and their isogenic counterparts with the Bt gene, comprising four treatments. The degradability determination of dry matter (DM) digestibility of silage corn treatments was determined by means of nylon bag in situ. After removal, the bags were washed and incubated, then placed in forced-circulation at 55°C to constant weight to determine the DM concentration. Data from in situ degradation of DM was adjusted in the mathematical model proposed by Ørskov and McDonald (1979). For the degradability of DM, the fraction "a" showed the interaction ($p < 0.05$), where the variety DKB do not showed difference ($p > 0.05$) for the gene insertion. For AG, showed a slight decrease ($p < 0.05$) when compared to its isogenic counterpart with the gene (35.68% and 37.85% respectively), means that the Bt gene reduced the solubility of DM of this fraction for AG range. The fact of the variety AG with and without the gene have suffered lower solubility of DM when compared the DKB with and without the gene is due to the fact of being early, although the harvest were accomplished with the same chronological age, forage quality of later hybrid was favored and the earlier hybrid was hampered by early conversion of the GM (genetically modified) hybrids, with higher percentage of dead material. For the fraction "b", effects occurred only among varieties ($p > 0.05$) that AG was greater than DKB (39.42 and 34.94 respectively), with greater potential for use of the fiber by ruminants because AG variety showed greater wording from DM content in the leaf and tassel ($p < 0.05$) compared to DKB. Regarding the "c" fraction have no interaction ($p > 0.05$), and inserting Bt gene increased the degradation rate of b fraction DKB with the gene variety in relation to DKB without the gene (0.035 and 0.026) and reduced the AG with the gene variety than AG without the gene (0.024 and 0.045), but without the gene, the AG variety was superior than DKB (0.045 to 0.026). These results, in some cases, are on average suggested by the authors that generally lies between 2 and 6% for the most of plant food of good quality.

Key words: degradability in situ, fractional degradation, ruminants, transgenic silage corn.