

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

NUTRITIONAL CHARACTERISTICS OF *Brachiaria Brizantha* CULTIVARS INTERCROPPED WITH *Stylosanthes* cv. CAMPO GRANDE IN DIFFERENT FORAGE SYSTEMS

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Grass-legume intercropping increases the quality of the forage, improving the quality of the animal diet and minimizing the production costs of pasture-raised cattle. Therefore, evaluate the nutritional characteristics of cultivars of *Brachiaria brizantha* intercropped with *Stylosanthes* cv. Campo Grande in different forage systems, in different seasons of the year, and over a 2-year period. The experiment was conducted in the Goiano Federal Institute, Rio Verde Campus. The experimental design was a randomized complete block design with three replications. The treatments consisted of the following forage systems: Piata palisadegrass, Paiaguas palisadegrass, *Stylosanthes* cv. Campo Grande, row intercropping of Piata palisadegrass with *Stylosanthes*, mixed intercropping of Piata palisadegrass and *Stylosanthes*, row intercropping of Paiaguas palisadegrass and *Stylosanthes*, and mixed intercropping of Paiaguas palisadegrass and *Stylosanthes*. Evaluations were performed in each of the four seasons of the year on the same plots over a 2-year period. Were performed analysis of crude protein (CP), neutral detergent fiber (NDF), acid detergent fiber (ADF), lignin and in vitro dry matter digestibility (IVDMD), adapted for artificial rumen by ANKON®, using a "Daisy incubator". The variables were submitted to the analysis of variance, through the R program version R-3.1.1, using the ExpDes package. The means were compared by the Tukey test at 5% probability. The variables nutritional characteristics of forage systems, were influenced ($p < 0.05$) seasons of the year and year evaluated. Grass-legume intercropping had a positive effect on nutritional characteristics of the forage, increasing the CP and IVDMD and decreasing the fibrous fractions (NDF, ADF and lignin). Row intercropping was more efficient in maintaining higher proportions of legume plants in the system, resulting in better nutritional characteristics. The lower nutritional value obtained in the second year in the haul system is due to the greater competition among the plants, because in this system the proportion of the legume was lower. In spite of the advantages of intercropping systems, forage quality decreased in the second year, especially for the mixed intercropping.

Keywords: crude protein, Paiaguas palisadegrass, Piata palisadegrass

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