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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

QUALITY OF TROPICAL GRASSES *IN NATURA* AND PRESERVED

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One of the main problems that occur in food preservation processes is the nutrient losses resulting from them. Despite the importance of conserving food for the period of shortage of fodder in the field, there are still few producers that adopt this technology. Considering that there are still few studies of this type of evaluation in Brazil, this research aimed to evaluate the quality of the chemical composition of tropical grasses in natura and fenada. The grasses Andropogon gayanus cv. Planaltina, Cenchrus ciliares cv. Áridus and Panicum maximum cv. Massai. The studies were carried out at the Federal Institute of Education, Science and Technology of Rio Grande do Norte, Apodi Campus. Forage was used for three cuts of the weeds with ages of 21, 35, 49 and 63 days. Samples were collected for the evaluation of chemical components, dry matter (DM), mineral matter (MM), crude protein (CP), neutral detergent fiber (NDF), acid detergent fiber (FDA) and ethereal extract fresh grass and hay. For the haymaking, the grasses were exposed to the sun in a pavement area for 18 hours. The design was completely randomized, with three grasses and four regrowth ages, and the averages were compared by the Tukey test at 5%. The contents of the nutrients MM, PB, FDA and EE did not change (P> 0.05) with the phenation process, with averages of 8.06; 9.39; 33.37 and 2.29 respectively. NDF content showed a significant difference (P <0.05), with hay increase when compared to in natura grass of the order of 3.44% (68.82 - 66.53). This result can be explained by the process of the phenomena triggering the Maillard reaction in the protein, promoting an increase in the nitrogen contents adhered to the constituents of the cell wall, thus reducing the crude protein content of the forage and increasing the NDF content. Therefore, the quality of tropical grasses had little influence on the phenation process, justifying their use as a food preservation technique.

Keywords: food storage, chemical composition, phenation, hay