

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

VARIATION OF CHEMICAL COMPOSITION DURING THE HAYMAKING PROCESS OF GRASS TIFTON 85

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Forage conservation is an important strategy used for times of feed shortages. The purpose of the process is to keep the maximum quality of the green fodder in the preserved forage. The objective was to evaluate the variation in the chemical composition occurring during the haymaking process of the Tifton 85 grass (*Cynodon dactylon*). Twenty-one plots of Tifton 85 grass of 4 m² each were used. The grass was cut for haymaking on June 23rd of 2017, 10 cm from the ground, when the grass was with 80 days of regrowth after a standardization cut. The grass sampling was performed at the time of the cut. The haymaking process lasted 72 hours, and after that period, samples of the hay were collected. Dry matter (DM), mineral matter (MM), ethereal extract (EE), crude protein (CP), neutral detergent fiber (NDF) and acid detergent fiber (ADF) contents were determined after analysis carried out at the Bromatology Laboratory of the University North of Parana – Arapongas. The total digestible nutrient (TDN) contents were estimated according to the equation: $TDN = 74.49 - 0,5635 * ADF$. Total carbohydrates (TC) were estimated by the equation: $TC = 100 - (\%CP + \%EE + \%MM)$ and non-fibrous carbohydrates (NFC) by the equation: $NFC = 100 - (\%NDF_{ap} + \%CP + \%EE + \%MM)$, where NDF_{ap} corresponds to NDF corrected for ash and protein. The data were submitted to analysis of variance adopting a significance level of 10%. The grass presented DM level of 35.8% at the time of the cut, and the hay, value of 90.7% of DM. MM, EE, NDF, ADF and TDN contents did not differ between grass and hay, presenting averages of 8.05, 1.48, 79.14, 40.92 and 51.44%, respectively. Contents of CP, CT and NFC were different between the hay and the grass that originated it. The CP content had an improvement in hay in relation to grass, with respective values of 10.28 and 9.4%. The green grass showed a higher value of CT in relation to the hay, with contents of 81.02 and 80.19%, respectively. The value of NFC was greater in green grass (5.74%) than in hay (4.90%), demonstrating losses of these nutrients during haymaking, due to cellular respiration activity. It is concluded that haymaking results in changes in the nutritional composition of the grass used.

Keywords: Crude protein, *Cynodon dactylon*, dry matter, nutritional value, total digestible nutrients

Promoção e Realização:



Apoio Institucional:



Organização:

