

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

EVALUATION OF FIBROUS FRACTION OF TROPICAL FORAGE LEGUMES IN DIFFERENT DEHYDRATION PHASES

Mariane Rodrigues FERREIRA*¹, Angelo Herbet ARCANJO², Natalia de Ávila SOARES³, Saulo Alberto CARMO², Norberto Rocha SILVA², Júlio de Sales BELLAN⁴, Kárito Augusto PEREIRA², Vanessa Zironi LONGHINI¹

*corresponding author: mariane_candeias@hotmail.com

¹Department of Animal Science, São Paulo State University, Jaboticabal-SP, Brazil.

²Federal University of Vales of Jequitinhonha and Mucuri, Diamantina-MG, Brazil.

³Federal University of Minas Gerais, Belo Horizonte-MG, Brazil.

⁴Department of Animal Science, São Paulo State University, Ilha Solteira-SP, Brazil

Hay production is a process of forage conservation by dehydration. During the respiratory activity (post cutting) the neutral detergent fiber (NDF), acid detergent fiber (ADF) and lignin levels are not significantly affected. However, they can increase proportionately since they are expressed in percentage values. Therefore, the aim was to evaluate the variation of the fibrous fraction of three tropical forage legumes during the hay production process. The experiment was conducted in a completely randomized design, with 3 × 3 factorial arrangement, with four replications. The treatments were combined in three species of tropical forage legumes (FL): *Stylosantes Campo Grande* (80% *Stylosanthes capitata* + 20% *Stylosanthes macrocephala*), *Pueraria* (*Pueraria phaseoloides*) and *Macrotiloma* (*Macrotyloma axillare* cv. Java); three dehydration phases (DP): phase I: 0 to 8h, phase II: 12 to 20h and phase III: 24 to 32 hours of drying. The legumes were implanted in January on 2014; the cut for hay production was carried out between the days 21 to 23 of February on 2015. After the drying periods, the contents of NDF and ADF were determined. The NDF was corrected for NDFcp and the levels of ash and crude protein present in the original NDF residue. Data were submitted to analysis of variance (ANOVA) of SAS, and the differences among the means were analyzed by Tukey test ($P < 0.05$). No differences in FL × DP interaction were observed for any of the analyzed variables. For the ADF, there was no effect ($P > 0.05$) for the isolated factors (FL and DP). For the NDFcp, there was an effect for factor isolated LT ($P < 0.05$). The greater FDNcp content was observed for the *Estilosantes Campo Grande* (513.13, 516.73 and 511.11), followed by *Pueraria* (508.18, 492.22 and 489.04) and *Macrotiloma* (478.88, 492.93 and 484.44) for phases I, II and III, respectively. The greater NDFcp levels associated to the lower ADF levels observed for *Estilosantes Campo Grande*, it indicate that this species presents a greater digestive fiber portion and that of dehydration time does not interfere in the fibrous fraction in the evaluated legumes.

Keywords: chemical composition, *Fabaceae*, forage conservation

Promoção e Realização:



Apoio Institucional:



Organização:

