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CHEMICAL COMPOSITION OF *Brachiaria brizantha* cv. MARANDU UNDER SHADING AND NITROGENOUS FERTILIZATION[1]

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The aim of this study was to evaluate the chemical composition of *Brachiaria brizantha* cv. Marandu, under shading (0, 30 and 50%) and N fertilization (0, 50, 100 and 150 mg/dm^3 of soil), using a completely randomized design in factorial 3 x 4 arrangement, with three replications. The shading was obtained using polypropylene mesh with different degrees of radiation transmission, and the nitrogenous fertilizer used was urea, diluted in water and applied on the soil. The cut was made at 35 days of regrowth. The crude protein (CP), neutral detergent fiber (NDF), lignin (LIG) and ash contents were analyzed. The results were submitted to analysis of variance and means studied using the SNK test and regression analysis (α=0.05) for the variables shading and N, respectively. The CP content was influenced ($P<0.05$) by shading and the N doses, while the NDF values were influenced ($P<0.05$) only by N fertilization. There was no shading or N dose effect ($P>0.05$) in the LIG content. Was observed an increase in CP values with the reduction of luminous incidence, with values of 7.5, 9.1 and 11.5% CP for 0, 30 and 50% shading, respectively. Were obtained mean values of 46.3% to the NDF and 3.1% to the LIG. The CP content presented a positive linear response as a function of N doses ($\hat{Y}=7.33+0.027X$; $R^2=0.98$). The NDF content presented a quadratic response ($\hat{Y}=48.33+0.0034X-0.0003X^2$; $R^2=0.98$), evidenced the N fertilization on improve of forage quality. The shading promoted increases of 53.3%, improving forage quality. Nitrogen fertilization had a positive influence on the nutritive value of Marandu palisadegrass, with increase in CP content and reduction of the NDF values.

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