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CHEMICAL COMPOSITION OF *Brachiaria decumbens* UNDER SHADING AND NITROGENOUS FERTILIZATION¹

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The aim of this study was to evaluate the chemical composition of *Brachiaria decumbens* cv. Basilisk, under shading (0, 30 and 50%) and N fertilization (0, 50, 100 and 150 mg/dm³ 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 ($\alpha=0.05$) for the variables shading and N, respectively. The variables evaluated were influenced ($P<0.05$) by shading and the N doses, with no interaction between factors ($P>0.05$). There was an increase in CP, NDF, LIG, and ash with the reduction of luminous incidence, with values of 7.8, 9.8 and 11.4% CP; 44.7, 46.2 and 48.0% NDF; 2.3, 2.7; and 2.8% LIG; and 6.9, 6.8 and 7.4% ash, for 0, 30 and 50% shading, respectively. The CP content presented a positive linear response as a function of N doses ($\hat{Y}=7.1408+0.034X$; $R^2=0.60$). Negative linear response was observed for NDF ($\hat{Y}=48.68-0.032X$; $R^2=0.90$), LIG ($\hat{Y}=48.68-0.032X$; $R^2=0.91$) and ash ($\hat{Y}=7.73-0.009X$; $R^2=0.94$). The shading promoted increases of 46% in CP content, improving forage quality. Nitrogen fertilization had a positive influence on the nutritive value of *B. decumbens*, with increase in CP content and reduction of the fiber fraction values.

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