PRODUCTIVITY AND NUTRITIONAL VALUE OF JIGGS (CYNODON DACTYLON) ACCORDING TO MOMENT OF NITROGEN APPLICATION

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The Jiggs forage (Cynodon Dactylon) stands out for its productivity and quality, however, it is necessary to make the correct fertilization management to provide a good yield with the best quality possible. The aim of this work was to evaluate the production and the chemical composition of the Jiggs forage under three different N-application after cutting. Treatments consisted of: No N-application (CT); N-application on cutting day (CN); N-application on the fifth day (N5) and on the tenth day (N10) after the cutting evaluated over two cuts. Nitrogen was applied at the rate of 100 kg ha⁻¹. Trial was conducted in one experimental beds and the cuts for evaluation of productivity and chemical composition was performed every 21 days, and the cut was performed in a randomly delimited area at each site. At the delimited site, the height of the pasture was measured, then cut and weighed to determine the forage mass. Dry matter (DM), neutral detergent fiber (NDF), acid detergent fiber (ADF), ash (MM) and crude protein (CP) were determined. The results were submitted to the F test and the means were compared by the Tukey test at 5% significance level. The DM and MM contents in the two sections showed no difference (P = 0.1103) among treatments. With the exception of the control treatment, the other treatments showed an increase in the forage mass (FM) in the second cut. In the first cut the FM only the treatment CN as greater compared to the control, in the second cut all the treatments were greater to the control and equal to each other. The CP did not differ between the times of N-application, only in relation to the control, to compare the cuts only in the treatment N5 the CP was superior in the first cut. In the first cut the NDF of the CN treatment was inferior to the treatment N10 and CT. Comparing the NDF between the cuts, only the CN treatment had lower value in the first cut. The ADF of the CN treatment was lower than the CT treatment in the first cut. Comparing the results between cuts, the treatments CN and N5 were superior in the second cut. The results of NDF and ADF from second cut had no difference (P = 0.0754 and P = 0.0637). Thus, the application of nitrogen fertilization shows satisfactory yield and chemical results, independently of the moment of N-application after cutting.

Keywords: chemical compounds, forage production, nitrogen application