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Start

400-4 Nitrogen Use Efficiency on Xaraés Palisadegrass According to Fertilization Strategy.

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Brachiaria brizantha is the most common grass pasture in Brazil, occupying about 70% of the cultivated pasture areas. The intensive management, while utilizing higher doses of fertilizers, has attempted lower post grazing heights to ensure better canopy structure and greater utilization of forage. The objective of this study was to evaluate the effect of two residual heights and two applications times on the nitrogen use efficiency (NUE) of Xaraés palisade grass. In a factorial scheme were evaluated two residual heights (15 and 25 cm) and two application times (immediately after defoliation and after first leaf appearance). The experimental units were plots (3 x 3m). The fertilizer (20-05-20 / N-P-K) was applied, during the rainy season, after each cycle in a dose of 50 kg/ha of N. The regrowth period was based on canopy growth necessary for a light interception of 95%. Data were collected in spring-summer of 2012-2013 and 2013-2014, in four grazing cycles. The experimental design was randomized blocks with four replications and data were analyzed using the Mixed Procedure of SAS®. Means were estimated using the "LSMEANS" command and comparisons made with "F" test with a 5% significance level. EUN was influenced by the interaction time x time of application. The NUE was influenced by the interaction residual height x time of application. The NUE was no difference between time of application when the residual height of 15 cm were considered; the average value was 52.7 kg DM / kg N. However, under residue of 25 cm the higher NUE was observed with the application of fertilizer immediately after cutting (64.2 kg DM / kg N) in relation to the application after the appearance of the first leaf (60.8 kg DM / kg N). For both application times the NUE was higher for 25 cm of residual height than for 15 cm (62.5 x 52.7 kg DM / kg N).

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