

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

PRODUCTIVITY OF GRASS Mombaça UNDER DIFFERENT PHOSPHORUS DOSES

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Mombasa grass (*Panicum maximum*) is considered one of the most productive tropical forages available to cattle ranchers and at the same time is considered very demanding. Phosphorus is limiting in its production because it actively participates in various metabolic processes of plants and the cerrado soils are quite deficient in this nutrient. The objective was to evaluate the productivity of the mombasa grass under different doses of phosphorus. The research was carried out in the municipality of Anápolis - GO between October 2016 and October 2017 in a dystrophic red Latosol. The work was conducted in 10 kg pots each. A completely randomized design with the following treatments was used: T1: without phosphate fertilization; T2: application of 90 kg ha⁻¹ of P₂O₅; T3: application of 180 kg ha⁻¹ of P₂O₅; T4: application of 360 kg ha⁻¹ of P₂O₅, having as source the Super Simple. Five replicates were used per treatment. The dosage of the other fertilizers were the same for all, according to soil analysis and crop requirements. The cuts of the grass were made manually at 70 cm in height and with a residue of 30 cm. Plant height, green and dry mass yield, dry matter content, crude protein and fiber were evaluated in four evaluation periods, where a mean of these variables was obtained for the presented results. Data were submitted to analysis of variance, media tests (Tukey at 5%) and polynomial regression. For plant height there was a variation of 56 to 78 cm for T1 and T4 respectively. There was a significant effect for green and dry mass yield, varying from 1376 g in T4 to 523 in T1 for green mass and 247 g in T4 to 96 g in T1 for dry mass per unit of evaluated vessel, however, T3 and T4 were statistically equal. The percentages of dry matter did not differ, ranging from 19.8 in T1 to 17.8 in T4, respectively. Crude protein contents as well as fiber did not differ between treatments, ranging from 14.9 in T1 to 15.2 in T4 to PB, NDF of 71.3 in T1 to 69.4 in T4 and ADF of 41 in T1 and 39.7 in T4. It is concluded that the use of phosphorus in the mombasa grass presents positive responses to the analyzed variables, the T3 and T4 did not differ significantly, therefore the dosage of 180 kg ha⁻¹ of P₂O₅ is sufficient.

Key words: forage yield, *panicum maximum*, Phosphate fertilization.

Promoção e Realização:



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