

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

PRODUCTIVE TRAITS OF ANDROPOGON GRASS MANAGED AT THREE HARVEST HEIGHTS

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Herbage biomass production in sufficient amounts and the perenniality of a pasture are directly influenced by the frequency and height of harvests. The objective of this study was to evaluate the productive traits of andropogon grass (*Andropogon gayanus* Kunth cv. Planaltina) subjected to three harvest heights. The experiment was set up as a completely randomized design with split plots over time where the harvest heights (15, 25, and 35 cm) represented the plots and the evaluation cycles (1st, 2nd, and 3rd) were the subplots. Each treatment had 8 replicates, totaling 24 experimental units. At the end of each cycle, two samples were collected per plot at 10 cm above the soil, using a 0.25-m² square frame. Samples were weighed and fractioned into leaf blade, stem+blade, and dead material, which were weighed before and after being dried in a forced-air oven at 55 °C for 72 h. All data were subjected to analysis of variance and mean comparison by Tukey's test using SAS 9.0 statistical software. Harvest height did not affect ($P>0.05$) leaf dry matter yield (LDMY), which was approximately 3002.7 kg ha⁻¹. There was an effect ($P<0.05$) on LDMY across the cycles, with the lowest value obtained in the 3rd cycle. Stem dry matter yield (SDMY) was highest when the grass was managed at 35 cm. The 1st cycle provided the highest SDMY, which was likely influenced by the inflorescence time of andropogon grass (April - May). The highest dead-herbage dry matter yields (DHDMY) were obtained when the grass was managed at 25 and 35 cm. This finding can be explained by the collection performed at 10 cm above the soil, where material remaining from the defoliation of the previous cycles was collected. The 1st evaluation cycle had the largest DHDMY. At each cycle, LDMY and SDMY decreased, and consequently so did DHDMY. Total herbage dry matter yield (THDMY) was lowest ($P<0.05$) in the treatments with the harvest heights of 15 and 25 cm, whereas LDMY was similar irrespective of the harvest heights; this lower total herbage value is attributed to the lower SDMY and DHDMY. There was no effect ($P>0.05$) of cycles on leaf/stem ratio (L/S), but this variable was affected by the harvest heights, with the lowest value obtained at 35 cm. Andropogon grass should be managed at a harvest height of 15 to 25 cm.

Keywords: grass, forage, senescence

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