

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## **Productive and structural traits of deferred Andropogon grass subjected to different closing times and defoliation intensities**

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Pasture deferment is a technique largely used as a strategy to ensure herbage mass that consists of closing the pasture during or at the end of the rainy period to be used in the dry period. The objective of this study was to evaluate productive and structural traits of deferred Andropogon grass subjected to different defoliation intensities and two closing times. A completely randomized design was adopted with a 2×3 factorial arrangement represented by two pasture closing times (rainy period, in April; and rainy/dry transition period, in June) and three defoliation intensities (15, 25, and 35 cm in height), with four replicates. The pasture was closed for 90 days. Data were subjected to analysis of variance and later comparison of means by Tukey's test ( $P < 0.05$ ). There was no interaction effect ( $P > 0.05$ ) between closing periods and defoliation intensities for leaf blade, stem dry mass, total herbage dry mass, leaf/stem ratio, or pasture height. The largest leaf production was observed when the pasture was closed in the rainy period as compared with the transition period, whose respective mean values were 2,563.46 and 1,206.38 kg ha<sup>-1</sup>. No difference was detected ( $P > 0.05$ ) among the defoliation intensities. The highest stem dry mass was recorded in the pasture closed during the rainy period (6,444.9 kg ha<sup>-1</sup>) versus 1,718.1 kg ha<sup>-1</sup> obtained in the pasture closed during the transition period. A higher total herbage mass was obtained in the pasture closed in the rainy period, which may be due to the greater stem production. Among the defoliation intensities, the largest production was observed in the pasture managed at 35 cm, which results from the greater participation of stems. Leaf/stem ratio was lower ( $P < 0.05$ ) in the rainy period (0.38) than in the transition period (0.70). Andropogon grass closed in the rainy period had an average height of 230 cm, which was higher than the 59 cm observed in the pasture closed during the transition. The grass closed in the rainy period features structural traits that might compromise animal performance and pasture persistence; when closed during the transition period, however, Andropogon grass is a good alternative. It is recommended to close Andropogon grass to grazing early in the transition period, at a defoliation intensity of 25 cm.

**Keywords:** stem elongation, Andropogon Gayanus, fodder scarcity

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