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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

DEMOGRAPHIC PATTERNS OF ANDROPOGON GRASS DEFERRED AT TWO CLOSURE TIMES AND THREE HARVEST HEIGHTS

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Tillering is a factor of great importance in the perenniality of a pasture, as it has a direct impact on herbage production per area. This study was undertaken to evaluate the demographic patterns of tillers of andropogon grass (*Andropogon gayanus* Kunth cv. Planaltina) subjected to three harvest heights and two closure times. The experiment was set up as a completely randomized design with a 3 × 2 factorial arrangement consisting of three harvest heights (15, 25, and 35 cm) in the rainy period and two times for the start of the pasture closure period (May and June). Each treatment had four replicates. Before closure, two tussocks were chosen per plot where the live tillers were counted and marked. At the end of the deferment periods, the tillers that had appeared, died, and survived were counted to calculate the tiller appearance (TAR), mortality (TMR), and survival (TSR) rates. Tiller appearance and survival rates were used to calculate the stability index (SI). All data were subjected to analysis of variance and mean comparison by Tukey's test at the 5% probability level using SAS 9.0 statistical software. The 35 cm residual height for the pasture closed in may shaded the base of the canopy, which led to a lower TAR and a higher TMR when compared with the pasture closed in June. Tiller appearance rate did not differ (P>0.05) across the harvest heights, whereas the lowest TMR was observed at the height of 25 cm. There was an interaction effect between harvest height and the start of pasture closure for the variables TSR and SI. Harvest height did not affect (P>0.05) TSR in the pasture closed in June, or SI at either closure time. A higher TSR was observed at the harvest heights of 25 and 35 cm for the pasture closed in May. The highest TSR and SI were obtained in the pasture closed in June. Higher tiller stability indices increase the chances of the management being repeated without causing pasture degradation over time. Andropogon grass should be managed in the rainy period at a harvest height of 25 cm, and the pasture deferment period should begin in June.

Keywords: deferment, tillers, perenniality