

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## INTERCEPTION OF PHOTOSYNTHETICALLY ACTIVE RADIATION IN PIATÃ GRASS CANOPY WITH DIFFERENT LEAF BLADE RESIDUES AFTER POST-GRAZING

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The orientation of pasture management based on light interception is one of the possible strategies to control forage accumulation in pasture. The appearance, elongation of leaves and stems, as leaf life duration are the characteristics that determine the canopy structure and define the leaf area index (LAI) that is the active morphological component in the amount and quality of light intercepted by plants, therefore, one of the main variables to be studied in the context of pasture management. The experiment was conducted at UFT, university campus of Araguaína - Tocantins, beginning on 11/27/2014 and ending on 05/20/2015, in pasture of piatã grass. Throughout the growing season of the piatã grass, three residues of 2, 4 and 6 cm of leaf blade (RLB) were evaluated in post-grazing, which were distributed in a completely randomized design. Measurement of light interception (IL) was performed with the canopy analyzer, SunScan Delta-T Devices, between 10:00 am and 2:00 p.m., before and after grazing, at twenty random points of readings along the picket at ground level. Thus, PAR (interception of photosynthetically active radiation) and leaf area index (LAI, m<sup>2</sup> of leaves m<sup>2</sup> of soil) were obtained. The obtained values of RLB approximated those intended for the experimental treatments, with real values of 2.3; 4.19 and 6.29 cm for treatments 2; 4 and 6 cm respectively. The 2 cm RLB presented the lowest post-grazing LAI 1.78, leading to an increase from 30 to 37 days of rest, when compared to leaf residue 6 and 2 cm, an increment of 7 days for the plant to reach the pre-grazing. In the lower residual LAI of treatment 2 cm, there was a reduction of IRFA of 57.90, 65.51 and 66.80%, respectively, for RLB 2, 4 and 6 cm, determining increase in the rest period of the pasture. Therefore, greater leaf blade removal (2 cm RLB) promotes a decrease in leaf area index and interception of photosynthetically active radiation, which leads to an increase in rest period.

**Keywords:** foliar removal, grazing management, light interception, morphogenesis, urochloa brizantha

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