

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

## MORPHOLOGICAL MASSES COMPONENTS OF PIATA GRASS IN SHADING SYSTEM AND SUBMITTED TO FOLIAR FERTILIZATION LEVELS

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The objective was to evaluate the morphological composition of *Urochloa brizantha* cv. Piata grass in the Eucalyptus shading and submitted to foliar fertilization levels (0, 3, 6 and 9 L ha<sup>-1</sup>) of Quimiorgen Pasto®. The experiment was conducted from August to November 2017 in the Mato Grosso do Sul State University, Aquidauana's Unit. The foliar fertilizer was applied in August 2017 and the evaluations occurred every 28 days (28, 55 and 83 growth days after fertilization). At points representative of the average height, forage samples were cut close to the soil of 0.0625 m<sup>2</sup> area and separated in leaves, stems and dead material. These fractions were weighed and dried in a forced circulation oven at 65 °C for 72 h and weighed again to obtain the dry matter of the different morphological components. The design used was randomized blocks with a factorial arrangement 4 x 2, three replications and scheme of measures repeated in time. The variables were evaluated by variance analysis and comparison of means by the t test at 5%. Leave, stem and dead material masses were similar (P>0.05) between the foliar fertilization levels with average values of 6327.13, 4818.94, and 4184.27 kg ha<sup>-1</sup>, respectively. In relation to presence or not of shade, differences (P<0.05) were observed only to stem e dead material masses. Stems masses was higher (P<0.05) in shade (5354.12 kg ha<sup>-1</sup>) than in full sun (4283.74 kg ha<sup>-1</sup>). This behavior shows that, in fact, shaded grasses tend to lengthen their stems, placing the leaves in higher strata to capture light. Stems elongation implies in greater masses of the morphological component. Despite this, the dead material mass was lower (P<0.05) in shade (3597.64 kg ha<sup>-1</sup>) than in full sun (4770.89 kg ha<sup>-1</sup>), showing the Piata grass adaptation in to conditions of low luminosity. Considering the experimental period, leave and stem masses showed differences (P<0.05) with higher (P<0.05) mass on the last day of growth after foliar fertilization (10626 and 7737.44 kg ha<sup>-1</sup> for leave and stem, respectively). This was expected since the pastures was not subjected to cutting or grazing, allowing free growth until the end of the experimental period. From these results we can infer that the Piata grass is adapted to the shading.

**Keywords:** *Brachiaria*, Cerrado-Pantanal transition, full sun, shading, structure

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