

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

INFLUENCE OF A SILVOPASTORAL SYSTEM ON ANATOMICAL ASPECTS AND DRY MATTER QUALITY OF MOMBASA AND MARANDU GRASSES

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The goal of this paper was to evaluate the influence of the shading in a silvopastoral system on the association of anatomical structures with nutritional parameters and gas production of Poaceae species. Plants of two species (*Panicum maximum* cv. Mombasa and *Brachiaria brizantha* cv. Marandu) were exposed to three shading levels (full sun, 25 and 50%). The shading was arranged in contiguous bands, and treatments were allocated in a completely randomized. Leaf blades were measured for parenchyma thickness (mesophyll), vascular bundle components, vascular bundle sheath, sclerenchymatic sheath, sclerenchymatic cap, sclerenchymatic extension, and epidermis secondary growth. In addition, measures of NDF and ADF contents, gas production, and dry matter degradability. The results were subjected to t-test at 5% and correlation analysis. The proportion of lignifying tissues such as secondary wall thickening and sclerenchyma was reduced under shading on an average of 66% and 60%, respectively. The proportions of metaphloem in Mombasa and Marandu grasses under the full sun were 5.5% and 3.7%, respectively. Gas production in shaded Marandu grasses was higher than was in Mombasa grasses because of the higher proportion of metaphloem. Considering the anatomical traits and gas production for shaded plants, Marandu grass showed the highest dry matter degradability.

Palavras chave: *Brachiaria brizantha*, Degradability, *Panicum maximum*, Parenchyma.

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