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MORPHOLOGICAL COMPOSITION OF CULTIVAR OF *UROCHLOA BRIZANTHA* UNDER LIGHT INTENSITIES

COMPOSIÇÃO MORFOLÓGICA DE CULTIVARES DE UROCHLOA BRIZANTHA SOB INTENSIDADES LUMINOSAS

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The implementation of silvopastoral systems (SSP) is a management option that gives good results for animal production, but the shading of the trees can alter production, growth behavior and morphological composition of the forage. The aim of the study was to evaluate the morphological composition of *Urochloa brizantha* cultivars Marandu and Piatã under natural light and artificial shading of 30 and 60%. The experiment was conducted at FMVZ - UNESP, Botucatu. The experimental design was a randomized block in factorial arrangement 3 x 2 (three shading levels: 0, 30 and 60% and two cultivars: Marandu and Piatã) with three replications and repeated measures in time (3 cuts). Sample collection occurred when the cultivars reached in 35 cm of height. Significant effects (P<0.05) of cultivar x shade x cut interaction were observed on the dry matter production of leaves and stems (Table 1). The higher production of leaves and stems (P<0.05) occurred for Piatã under natural light in the third cut (3731 and 1920 kg/ha, respectively). The absence of shade favored greater leaf production, 35 and 27% higher than the reductions of 30 and 60% respectively. The increment of stems for Piatã under natural light is related to the increase of inflorescences. The leaf:stem ratio was higher (P< 0.05) for Marandu under natural light (Table 2), with effect from the interaction cultivar x brightness level. A significant effect (P<0.05) cultivar x level of light reduction for light interception parameter was detected (Table 2). For Marandu, light levels were not influenced (P<0.05) light traps (Table 2), being close to the 95% criterion used for pasture management, justified by the collection at the point of balance between forage productivity and nutritional content, and strong relationship with high input grazing. The results indicate that the morphological composition of the cultivars is modified by reducing the light intensity.

Table 1. Dry mass leaf (DML, kg ha-1) and Dry mass stem (DMS, kg ha-1) in forage grasses on three shading levels

	DML							DMS					
Cuts	Piatã			Marandu			Cuts	Piatã			Marandu		
	0%	30%	60%	0%	30%	60%		0%	30%	60%	0%	30%	60%
1°	2218	1761	1485	2026	1867	1811	1°	1444	1092	996	584	764	1099
2°	2151	916	1436	2892	898	1979	2°	1145	580	979	861	393	1350
3°	3731	1771	1386	757	1668	1909	3°	1920	1102	907	236	975	1221

Table 2. Leaf:stem ratio (L:S), light interception (LI) in forage grasses on three shading levels

L:S						LI					
Piatã			Marandu			Piatã			Marandu		
0%	30%	60%	0%	30%	60%	0%	30%	60%	0%	30%	60%
1.82 c	1.62 c	1.55 c	3.4 a	2.14 b	1.56 c	87 b	78 c	74 c	92 a	93 a	90 a

Means with different superscripts in the same row are different.

Keywords: forage production, light interception, shading.