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245-15 Morphological Composition and Herbage Accumulation of Brachiaria Decumbens in Silvopastoral System and Monoculture.

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The silvopastoral system has been suggested as an alternative to recovery degraded pastures and to intensify animal production in grazing systems. The objective of this study was to evaluate the morphological composition and herbage accumulation of Brachiaria decumbens in silvopastoral system (SPS) and monoculture (MON), under continuous stocking grazing of dairy heifers, during two seasons of the year (summer and autumn) and for two years. The experiment was carried out at EMBRAPA Dairy Cattle, Minas Gerais State, Brazil, from December/2011 to June/2012 (184 days) and December/2012 to May/2013 (149 days). The experimental design was a complete randomized block with two treatments and three replications. The pasture traits were estimated based on 10 samples collected in each paddock (1.5 ha), with a frequency of 21 days. The samples were separated into live and dead materials and leaf and stem fractions and dried in forced draught (55°C for 72 hours). The herbage accumulation was estimated by agronomic difference method, using exclusion cages. The data were analyzed as repeated measures in time, using PROC MIXED of SAS®. Means were compared using a probability level of 5%. There was no effect (P>0.05) of system, year and season on herbage accumulation (average of 1,405 kg ha⁻¹). However, the systems were different (P<0.05) for leaf, stem and dead material dry mass. In general, the MON had larger means (1,231 kg ha⁻¹ for leaf mass, 1,821 kg ha⁻¹ for stem mass and 686 kg ha⁻¹ for dead material) than the SPS (706 kg ha⁻¹ for leaf mass, 1,023 kg ha⁻¹ for stem mass and 374 kg ha⁻¹ for dead material). Although the moderate shading did not affect the herbage accumulation, which may be attributed to tolerance of B. decumbens to shading, the higher leaf dry mass in MON indicate its larger carrying capacity when submitted to grazing.

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